



A Weekly Journal of Pharmacy and the Drug-trade.

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EXPORT TRADE.

IF there is one thing which is particularly characteristic of *THE CHEMIST AND DRUGGIST*, it is that its influence abroad is as noteworthy as its place at home. There are few druggists who have business relations with Great Britain and Ireland who do not read *THE CHEMIST AND DRUGGIST* regularly; it brings them into touch with all sections of the trade, and they buy goods through it. In many cases the British agents of such firms are not directly connected with the drug-trade, but they write to us frequently asking where they can get such-and-such goods. We tell them to the best of our ability, and supplement this with general information once a year in our *Merchant Shippers' Number*. This will be published on March 10, and it should contain advertisements by manufacturers, dealers, and wholesale houses of the goods which they offer, especially to colonial and foreign buyers. We strongly recommend advertisers to secure space from our publisher by an early post.

Summary.

PARTICULARS of the new Indian tariff are given on p. 317.

WHAT may be done in side-lines is the subject of an article on p. 334.

A FRENCH INFLUENZA-CURE is one of the good things in French news on p. 317.

MR. JAMES REID declares that the Pharmaceutical Council is riding for a fall (p. 351).

THE MANX PHARMACY BILL is hanging fire, owing to the illness of the legislators (p. 314).

SEVERAL POEMS by pharmaceutical rhymesters on the volunteer dispensers are printed on p. 349.

INSECTS which attack crude drugs are illustrated on p. 330, with descriptions by Mr. W. A. Knight.

TRADE in Mincing Lane this week has been good, especially in quinine, which is on the boom (p. 355).

THE FEDERATION gives provincial associations choice of two lines of action on the Companies Bill (p. 329).

THE NORTH BRITISH BRANCH had a sessions' supply of papers on Wednesday evening, which are reported on p. 339.

LETTERS in regard to the Companies Bill are printed on p. 350, as suggestions to those who write to their members of Parliament.

THE BIRKENHEAD SLANDER CASE, in which Messrs. Evans, Sons & Co. were the plaintiffs, was amicably arranged in court (p. 360).

AN IRRESPONSIBLE REPORTER sends us some amusing notes on the last Bloomsbury evening meeting, which are printed on p. 342.

THE LAMBETH CORONER has laid down, in the course of an inquest, the limits to which a chemist may go in giving first-aid (p. 314).

THE adulteration law of this country is bewildering to the uninitiated. We give an epitome of decisions affecting the trade on p. 335.

AN OLDHAM LIMITED COMPANY has been fined this week under Section 17 of the Pharmacy Act, for neglecting to label chlorodyne (p. 343).

A REPORT on the Indian section of the B.P. Addendum has been issued by Dr. John Attfield. It deals with a Madras report, and is summarised on p. 324.

"XRAYSER" points out several imperfections in the drafting of the Pharmacy Clause of the Companies Bill which alone make it an impracticable piece of legislation (p. 333).

THE SAMPLE given for analysis by Mr. Moss this month contained barium sulphate, ammonium, magnesium phosphate, and potassium chlorate. The prizes go to Clapham and Glasgow (p. 312).

DR. WALTER H. INCE gives some interesting particulars regarding the drug-trade in Trinidad, and how the natives physic themselves. The article contains pictures of three pharmacies (p. 318).

A PHARMACEUTICAL VOLUNTEER, who has gone to the front, describes the life on the troopship. We also give a portrait of Mr. Salinger, a Vinolia traveller, who was one of the Kimberley relief force (p. 320).

OUR TOWN TRAVELLER reports that business is fairly good. He finds that the brush-trade is very busy, the demand for toothbrushes being greatly on the increase. Some new perfumes are described (p. 322).

OUR obituary columns contain notes respecting Messrs. Wm. Dittmar (Berlin), John Elliott (Berwick-on-Tweed), E. J. Phillips (Pontypool), and Wm. Thorp, B.Sc. (London). Portraits of the first two are given (p. 321).

DURING A WILD BLIZZARD at Blackburn last week there was much pharmaceutical talk. Mr. J. R. Young apologised for the Pharmaceutical Council doing nothing on the companies question, and Mr. Newsholme and Dr. Symes also spoke of the Council's difficulties and work; while Mr. Lord Gifford spoke as forcibly on the other side, accusing the Council of neglecting trade interests, and of being incompetent (p. 325).

Students' Corner.

CONDUCTED BY RICHARD J. MOSS, F.I.C., F.C.S.

QUALITATIVE ANALYSIS.

THE subject of the next exercise in qualitative analysis will be a mixture of not more than three salts. The mixture is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a *stamped and addressed envelope*, not a stamp merely) will be received up to Wednesday, February 28, and the samples will be posted on March 1.

Students' reports will be received up to Saturday, March 10. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

REPORTS.

The mixture of salts sent to correspondents early this month consisted of 3 parts of barium sulphate, 1 part of ammonium magnesium phosphate, and 1 part of potassium chlorate.

The calculated composition of this mixture is—

Ba	...	...	...	...	35.28
Mg	...	...	...	...	1.96
K	...	...	...	...	6.37
NH ₄	...	...	...	...	1.47
PO ₄	...	...	...	...	7.75
SO ₄	...	...	...	...	24.72
ClO ₃	...	...	...	...	13.63
H ₂ O	...	...	...	...	8.82

100.00

There was no impurity of note present except a trace of chlorine. Samples of the mixture of salts were sent to 100 applicants, and 50 reports of analyses were received in reply.

The failures in the detection of the several constituents were: Barium, 6; magnesium, 15; potassium, 4; ammonium, 19; phosphoric acid, 11; sulphuric acid, 5; chloric acid, 17. Twelve students reported aluminium present, though there was not a trace of the metal in the mixture.

The simple experiment of heating a little of the powder in a tube with a bulb at one end showed, if properly conducted, that an ammonium salt was one of the constituents of the mixture, and that chlorine was present in a form capable of being liberated by heat under the conditions of the experiment. When a platinum wire which had been dipped in the powder was placed in the Bunsen flame, there was first the violet—or, rather, lavender—coloration of potassium, followed by a persistent yellowish-green, suggesting barium. Passing over other experiments that would naturally form part of the preliminary examination in the dry way, the student proceeded to make a solution of the powder, and ascertained that water did not dissolve it. It was very important to find out whether any of it dissolved, and for this purpose the water with which the powder had been treated was evaporated to dryness. This gave a residue which, by the flame-test, was at once found to be a potassium salt, and several of our correspondents readily identified it, by a few simple tests, as potassium chlorate. This disposed of two of the substances detected in the preliminary examination. Some students observed that this aqueous extract of the powder contained only a very minute quantity of ammonia—an important observation, considering that nearly all ammonium

salts are soluble in water. The next step was to try the action of a dilute acid on the powder—or, rather, what remained of it. This led to the discovery that a portion was soluble in dilute hydrochloric acid, and that even strong acids failed to dissolve an appreciable quantity of the residual white solid. Barium was not detected in the part soluble in water nor in that soluble in dilute hydrochloric acid, therefore it must be a constituent of the insoluble part. This inference was confirmed by the flame-coloration of the residue; and a regular analysis, after fusion with an alkaline carbonate, led to the detection of barium in the form of sulphate.

The dilute hydrochloric-acid extract of the powder was found to give a white precipitate on the addition of ammonia. Careful observation showed that this precipitate was crystalline; it was therefore not aluminium hydroxide. Proceeding in the ordinary way, the precipitate was found to contain a phosphate, and the phosphoric radicle was removed as iron phosphate, leaving a solution in which magnesium only was detected. It was found that the acid extract of the powder contained distinctly more ammonia than the part soluble in water. The occurrence of magnesium and phosphoric acid in the part of the powder soluble in dilute hydrochloric acid and not in water explained the occurrence of ammonia in this part, because ammonium magnesium phosphate is the familiar salt of magnesium most frequently used as a form for the identification and determination of that metal.

The separation of the three constituents of the powder by the use of solvents was not complete, because the magnesium salt is appreciably soluble in water, and, of course, other methods of analysis were practicable. It is noteworthy, however, that the best reports received were those in which most advantage was taken of the different solubilities of the three constituent salts of the mixture.

PRIZES.

The First Prize for the best analysis has been awarded to E. H. HARRY, 57 Old Town, Clapham, S.W.

The Second Prize has been awarded to HENRY RODWELL, Glasgow School of Pharmacy, 180 West Regent Street, Glasgow.

MARKS AWARDED FOR ANALYSIS.

E. H. Harry (1st prize)	...	100	J. S. Child	...	...	75
H. Rodwell (2nd prize)	...	99	Iris	...	...	75
A. E. Beeston	...	98	Innocent H.	...	...	73
A. E. King	...	97	E. M. Leese	...	...	72
J. S. H.	...	95	G. W. Marris	...	...	67
Algol	...	95	Cumbriana	...	...	65
R. R. B.	...	95	Epoc	...	...	64
J. R. Stott	...	94	Arundel Castle	...	...	63
Leven	...	94	M. H.	...	...	62
H. M.	...	93	Mycelium	...	...	61
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Turps	...	91	First Attempt	...	...	56
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PbO	...	89	Aberthaw	...	...	54
Eros	...	88	J. W. T.	...	...	50
C. M. S.	...	88	Al ₂ SO ₄	...	...	48
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H. P. W.	...	83	A. S. Reid	...	...	30
Japaconitine	...	81	H. Brunskill	...	...	28
Longtome	...	81	Nux	...	...	15
Quereus	...	80	Tyke	...	...	10
A. C. Watmough	...	77	Kimberley	...	...	10

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as a second prize.

Note.—All communications should include the names and addresses of the writers.

EROS.—You left unexplained the sublimate you observed on heating the powder in an ignition-tube. Your test for ammonium compounds is too rough for accurate work. To detect ammonia in the gaseous form the less water present the better, because it dissolves a very large quantity of the gas, and traces are only slowly expelled from boiling water.

HOPEFUL.—The test you used for ammonia gave enough to detect even by smell, provided the mixture of lime and powder was very slightly moistened; the water added should be just sufficient to make the particles cohere. Your report would be more intelligible if drawn up in separate columns, so as to show in one column what was done with a given precipitate, and in an adjoining column what was done with the corresponding filtrate.

SALEBIA.—You were wrong in concluding there was no sublimate produced on heating the powder in an ignition-tube. Possibly the condensed water interfered. This could be avoided by holding the straight part of the tube so that the open end pointed a little downwards, the powder being retained in position in the bulb. By cutting the tube the sublimate was separated from the fixed part of the powder, and it was easy to ascertain that it contained ammonia.

TRAGACANTH.—You omitted a very important general test for acids—the action of concentrated sulphuric acid on the powder. This treatment produced a yellow colour and strong chlorous fumes, clearly pointing to a chlorate.

H. P. W.—See remarks to "Eros."

JAPACONITINE.—It is gratifying to hear that you found the "Students' Corner" such a help in your Minor examination. The reactions you thought due to nitric acid were due to chloric acid.

LONGTONE.—You concluded that the gas evolved by the action of sulphuric acid consisted of nitrous fumes, though their colour was greenish-yellow, whereas nitrous fumes are of a brownish-red colour. The liquid, too, was deep yellow or orange, according to the quantity of acid used: no such effect is produced by a nitrate.

QUEBUS.—The precipitate you mistook for aluminium hydroxide consisted of barium phosphate. You cannot distinguish alumina from a phosphate by the cobalt test: they both yield a blue mass.

A. C. WATMOUGH.—You omitted to examine the powder for an ammonium compound.

J. S. CHILD.—The method you employed completely separated magnesium from phosphoric acid if properly carried out, but on adding sodium acetate in large excess to the hydrochloric-acid solution of the ammonia precipitate, there was no precipitate. You appear to have obtained one, notwithstanding the absence of iron and aluminium. On adding to this solution ferric chloride until the precipitate, on being well shaken up, was a decided red colour, boiling for a few minutes and then filtering, a colourless filtrate was obtained which gave no precipitate with ammonium chloride, ammonia, and ammonium carbonate, but gave an abundant crystalline precipitate with sodium phosphate.

IRIS.—You found that the portion of the powder insoluble in water was not completely dissolved by acids, and seem to have concluded from this observation that acids dissolved no part of it. You should have evaporated the acid extract to dryness: it gave an abundant residue.

INNOCENT II.—The aqueous extract of the powder when evaporated gave a residue crystallising out in flat crystals. On a platinum wire the crystals deflagrated and fused, colouring the flame violet, with scarcely a trace of sodium coloration. It is difficult to understand your statement that this residue gave no reliable reaction for potassium. When ignited, dissolved in water, and treated with platinic chloride there was an abundant yellow crystalline precipitate. It was equally easy to detect chloric acid in this residue.

E. M. LEESE.—See remarks to "Hopeful" and "Salebia."

G. W. MARRIS.—See remarks to "Iris." It requires a strong heat to fuse sodium carbonate—a spirit-flame is not hot enough. A mixture of sodium and potassium carbonates in molecular proportions fuses at a lower temperature than either of the salts separately.

CUMBRIANA.—You omitted to state how you tested for ammonia. See remarks to "Hopeful" and "Salebia." The behaviour of the powder (or, better, the residue obtained on evaporating the aqueous extract to dryness) with concentrated sulphuric acid should have suggested a chlorate. The gas evolved bore no resemblance to sulphur dioxide.

EPHC.—Chlorides treated with sulphuric acid evolve hydrochloric acid. Chlorine is not evolved unless an oxidising agent, such as manganese dioxide, is present. It was a mistake to fuse the powder with an alkaline carbonate without first extracting the portions soluble in water and dilute hydrochloric acid respectively. Your supposed precipitate of lead sulphate was barium sulphate.

ARUNDEL CASTLE.—If the operations you describe had been conducted properly, you should have detected phosphoric acid. A nitric-acid solution of ammonium molybdate is much the best reagent to employ.

MYCELUM.—It was impossible to add a drop of concentrated sulphuric acid to a little of the powder in a dry test-tube without obtaining the result referred to in above remarks to "Tragacanth." Your statement that no effect was produced is inexplicable.

FICKLE.—See remarks to "Tragacanth." The gas evolved is chiefly chlorine peroxide (ClO_2). It explodes at a temperature of about 60°C ., so you should use only a minute quantity of potassium chlorate in trying the experiment.

FIRST ATTEMPT.—You made no mention of any test for ammonia or phosphoric acid.

S.V.R.—You report the detection of a sulphate, but in your summary of results you omitted the sulphate, and said a sulphide was found.

J. W. T.—It was a mistake to treat the powder as if no part of it dissolved in water and acids: two-fifths of it dissolved. The action of sulphuric acid on the powder should have been more closely observed.

Al_2SO_4 .—All the ammonia must have been evolved in the test you used, but under conditions which made it difficult for you to recognise it. Effervescence is not always due to the escape of carbon dioxide. In this case the gas evolved was chiefly chlorine peroxide.

BADEN POWELL.—Your failure to obtain a sulphide by fusing with sodium carbonate on charcoal was probably due to the operation being too hastily performed. It was necessary to decompose the chlorate, which produced a strong oxidising effect, and continue the heating until the carbon had deoxidised the sulphate, a change that takes place slowly. Your metallic beads are inexplicable. Possibly your charcoal had been used to reduce a tin salt.

T. W. HAZELBY.—A mixture of calcium phosphate and sulphate and potassium chloride would have dissolved completely in warm dilute hydrochloric acid, whereas you found the powder was not soluble. You rely too much on information gained by merely reading about tests: you can never really learn in that way—you must study every reaction by experiment.

OLEUM.—The residue from the fusion with fusion-mixture and extraction with water should have contained the barium as carbonate, but as you failed to detect more than a trace of sulphate in the water extract, it is highly probable your fusion was very imperfect.

A. S. REID.—You omitted the examination of the greater part of the powder—the insoluble part.

H. BRUNSKILL.—You were unable to say whether water dissolved any of the powder. A very simple experiment would have settled the point: it was only necessary to treat the powder with water, filter, and evaporate the water to dryness. Twenty per cent. of the powder was separated in this way, and dilute hydrochloric acid removed another 20 per cent.

TYKE.—It was a great mistake to treat the whole powder as if no part of it dissolved either in water or acids.

KIMBERLEY.—It is clear from your report that you have not practically studied the various reactions you have been trying to put to practical application.

THE TOURNAMENT.

This month's results show a further creeping up on the part of E. H. H., Welburn, and several others. Messrs. King and Beeston still maintain their supremacy, but the next two months may show a change in the state of affairs if candidates work as well as they have hitherto done. The following are the first dozen:—

A. E. King ..	...	...	396	Algol ..	...	...	374
A. E. Beeston ..	...	...	388	J. S. H. ..	...	...	366
E. H. H. ..	...	...	385	J. R. Stott }	...	...	360
Welburn ..	...	...	384	H. M. }	...	...	360
R. R. B. ..	...	...	382	Hopeful ..	...	...	355
Leven ..	...	...	376	W. Maxwell...	...	...	355

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Chemists and Wound-dressing.

An inquest was held at Lambeth on February 16 on the body of a labourer named Dudman, who died from lockjaw in St. Thomas's Hospital after being treated for a cut on his thumb by an assistant in the shop of Mr. W. Power, chemist and druggist, Walton-on-Thames. The evidence of John Edward Marshall, Mr. Power's assistant, was to the effect that when deceased was first brought into the shop he put some isinglass plaster over the wound. Deceased came again in a few days, and witness saw that the wound was slightly swollen, so he nipped the plaster and put on a fresh piece of bandage. Two days later he gave deceased some carbolic lotion (1 in 40) and lint, and when he called for the last time he cauterised some proud flesh which had appeared on the edge of the wound. People frequently came to the shop to have wounds dressed. The examination of witness proceeded in the following strain:—

By the Coroner: I suppose in the same way what are considered slight ailments are treated medically in a chemist's shop?—People come in for slight complaints.

You mean what seem to be slight?—Yes; a cough or a cold.

Which might be inflammation of the lung for all you know?—If a man's breathing is short, or he has a slight cough coming on, we might prescribe for him.

Do you ever auscultate their chests to find out what the cough is?—No, sir.

How do you know the nature of a serious cough?—We judge from their symptoms and from what they tell us.

What do you know in connection with heart-disease, for instance? The fact is chemists undertake to treat cases of the origin of which they know nothing. It may be very serious. I suppose this is the general practice, is it not?—Well, you cannot get out of it always.

Why?—Poor people cannot afford to go to a doctor, and we must give them sixpennyworth of cough-mixture to relieve them.

But there are a good many cheap dispensaries in this country?—We have not one down our way, and doctors are very wide apart. The parish doctor lives out of the village—two miles from where the deceased lived—and people will not take the trouble to get an order. I did not advise the deceased to go to a doctor because he did not complain.

Mr. William Power, chemist and druggist, High Street, Walton-on-Thames, also gave evidence, in the course of which he stated that Mr. Marshall had been in his service about fifteen years, and he had never known him to make a mistake of any sort. They got a lot of small surgical cases to attend to, for people would not go to a doctor with them. Besides there was only one doctor in the village; Dr. Mason was a mile off, and there was 6 inches of snow on the ground the night the deceased first came. He never knew what to do in a case of dog-bite, for persons usually rushed into the chemist's first thing to have the wound cauterised. He and his father had been in business at Walton for fifty years.

The Coroner explained that it was not "first-aid" cases that he so much objected to as the chemist continuing treatment instead of sending the cases to a doctor.

Mr. Percy Sergeant, M.B., house-surgeon at St. Thomas's, gave evidence of the cause of death, and said that, even if the wound in the first instance had been treated antiseptically, one could not be certain that all the organisms were out of the wound.

The Coroner, summing up, remarked on the foolishness of persons going for treatment for even minor complaints to unqualified persons. People ought to know that chemists were not qualified for surgical cases, and if they went to them with open eyes they were as much to blame as the chemists who treated them. In this case there was nothing in the way of neglect in the ordinary sense of the word: the assistant treated the case to the best of his ability. A chemist's business, however, was to compound drugs and make up prescriptions, and when one attempted to go beyond that, and treat and diagnose diseases, he put himself in danger. First-aid was justifiable, but continuing the

treatment was not. Although a chemist did not do it for much gain, still he charged something for the material. Moreover, the deceased had no business to have consulted the chemist at all.

The jury returned a verdict of accidental death, and expressed the hope that the case would be a warning to chemists in the future, and that, after rendering first-aid, they would always send such cases to a properly qualified medical practitioner.

Mr. Power promised not to treat such cases in future, and the Coroner closed the proceedings by saying that, when he went into chemists' shops to make purchases, he frequently saw people waiting to be treated and prescribed for, but it was highly improper.

The Manx Bill.

The legislative lull in the Isle of Man has, we are creditably informed, no sinister meaning. The passing of the Manx Pharmacy Bill is merely delayed on account of the illness of several members of the Council, which has prevented them from assembling.

The North Sea Phosphorus.

In a recent issue (February 3, page 202) we reported the finding in the North Sea of a large case containing phosphorus, which was brought up in the trawl-net of a Yarmouth smack, and handed over to the Custom-house authorities of that port. The case had originally contained ten boxes, but an investigation on the fishing-vessel into the contents of one led to its bursting into flame, when it was for safety, sake hurled overboard. The remaining nine cases were in perfect order and each weighed 10 lbs. There was no clue upon the case whether the article was of British or foreign production, but the outside was branded "Phosphorus-sticks." Upon the publication in THE CHEMIST AND DRUGGIST of the facts of the find, Messrs. Sanford & Son, of Sandy, Beds, manufacturers of rat-poison, promptly offered the Yarmouth authorities 3*l.* for the lot. No other offer was received, and on February 16 Messrs. Sanford's bid was accepted.

The Council Complains.

At a meeting of the Surrey County Council recently, complaint was made of what was described as the scant encouragement given by local magistrates to prosecutions under the Sale of Food and Drugs Act. The case of a local chemist who sold camphorated oil of inferior strength was cited as an example. The Council had expended a large sum in the prosecution, and the defendant was fined 1*s.*, notwithstanding that the facts stated in the analysis were not denied.

Analysts' Reports.

Mr. A. Angell, the Hants County Analyst, reports that all the drugs analysed by him during the past quarter were genuine, with the exception of one sample of seidlitz powder which was contaminated with lead.

Mr. E. W. T. Jones, F.I.C., Analyst for Staffordshire, reports that amongst the samples analysed by him during the past quarter, were three of sweet spirit of nitre. One of these contained only 8 per cent. of the minimum amount of ethyl nitrite. Two samples of vinegar were genuine, while two others were coloured and diluted acetic acid. He considered it a very great fraud to sell as vinegar such rubbish as the latter samples.

Drug-adulteration.

During the past year the public analyst for the county-borough of Newport-on-Usk has examined two samples each of seidlitz powder, milk of sulphur, precipitated sulphur, and spirit of nitre. One sample of milk of sulphur, and both samples of spirit of nitre, were found to be adulterated, the remainder being genuine.

Wants an Increase.

Mr. Brierley, the Southampton borough analyst, has applied to the Corporation for an increase of salary. He is at present receiving 200*l.* a year, and is allowed half fees amounting to about 40*l.* per annum. The Council has been recommended to increase the salary to 300*l.*, all fees to be paid to the Corporation.

Fire.

The premises of the Globe Typewriter Company (Limited), at 66 Holborn Viaduct, caught fire on February 17 and were nearly destroyed. The basement is occupied by Messrs. Burroughs, Wellcome & Co., and the stock therein was slightly damaged by water.

Prussic-acid Poisoning.

At an inquest held at Branksome on February 17, on the body of William Giles Gollop, manager of a timber-yard at Poole, the evidence showed that deceased was found dead on the seat of a railway-carriage, and a green bottle, labelled "Prussic acid," was discovered beneath the seat. Mr. Henry Ayre, chemist and druggist, High Street, Poole, deposed to selling the prussic acid to Mr. Gollop, whom he knew well. Deceased asked for 1 oz. of prussic acid to destroy a dog. Witness knew that deceased kept dogs, and told him 2 dr. was sufficient, but deceased said two-thirds of the poison was often wasted in administration, and witness ultimately gave him the acid, after he had cautioned him as to its use and got his signature in the poison-book. The Coroner said Mr. Ayre had done all that was necessary, and had rendered all the assistance he could in affording information as to the circumstances of the purchase. A verdict of suicide by prussic acid was returned.

Selecting a Dispenser.

At a meeting of the Newport-on-Usk Board of Guardians on February 17 it was reported that nine applications for the post of dispenser at the workhouse had been received, and that the Dispensary Committee would meet on February 13 to make the final selection.

Summoning the Dead.

At Marylebone Police Court on February 17, a summons was on the list against George Washington Evans, for infringing the Medical Act by representing himself to be a doctor of medicine, and falsely assuming the titles of "doctor" and "M.D." On the case being called a man named Collis stepped forward and informed the Magistrate that the person summoned died in November of last year at Brighton. He (Collis) had for some time acted as Mr. Evans's dispenser, and, out of sympathy for the widow, took over all the affairs. The summons was adjourned for a week.

Material Particulars.

John Thorn Ainslie Walker (32), analyst, who last sessions pleaded guilty to omitting material particulars from the books of his employers, Messrs. Forbes, Abbott & Leonard (Limited), manufacturing chemists, Gracechurch Street, E.C., was ordered by the Common Serjeant, at the Central Criminal Court on February 15, to enter into recognisances in 100*l.* to come up for sentence if called upon.

Students at Gasworks.

On February 14 the students of the Imperial College of Chemistry (Mr. F. Davis, principal) visited the South Metropolitan Gasworks, over which they were conducted by the assistant-engineer (Mr. Duckham), who graphically described the various processes. The distillation of the coal by the old and new variety of retorts was shown, the charging and drawing processes being accomplished by means of compressed air in the one case and gravitation in the other. The gas passes from the retorts into the hydraulic main, where some of the tar and ammonia in the crude gas is retained. From the mains the gas passes into the condensers, where it cools, and thence it is pumped through "Livesey" washers, which take out the remainder of the tar and soluble impurities, tower scrubbers, which remove the remainder of the ammonia from the gas, and three purifiers. The first, charged with lime, removes the carbon dioxide and sulphur, while other two, charged with oxide of iron, remove the sulphuretted hydrogen. The ammoniacal liquor is converted into sulphate of ammonia, and the sulphur recovered by means of "Claus" sulphur-kilns. The manufacture of Prussian blue having been seen, the students presented their guide with a silver card-case before they left the works.

Sentenced.

At Herts Assizes last week, A. Allan, *alias* Allan Purton, and James Wilton, were sentenced to fifteen months' and nine months' hard labour respectively for endeavouring to obtain credit by fraud from a number of firms, including Messrs. T. & F. Bristowe & Co., perfumers and soap-manufacturers, Clerkenwell. The circumstances were reported in our issue of February 10, page 238.

May Keep their Sign.

At the weekly meeting of the London County Council on Tuesday, it was agreed, on the recommendation of the Building Act Committee, that permission be given to the Erasmic Company (Limited) to retain the wood-and-iron sign in front of 117 Oxford Street, St. James's, subject to the conditions that the sign be approved by the District Surveyor, and be taken down and renewed within one year from February 20, 1900.

Mayoral Ball.

Mr. Joseph Beecham, Mayor of St. Helens, gave a highly-successful children's fancy-dress ball at the Town Hall, St. Helens, on Tuesday, February 20. The occasion was an interesting and extremely enjoyable one, it being the first children's fancy ball in that town. The Mayor and Mayoress received, and there were four Misses Beecham present, representing by their pretty dresses Art, Music, Poetry, and Fairyland. It is probable there were some representatives of the craft present at the *fête*, but up to the time of going to press we have not been informed.

Oxalic-poisoning.

James Blount, a newspaper-agent, of Ashton-under-Lyne, poisoned himself on Monday night with oxalic acid.

Theft by a Messenger.

At the Mansion House Police Court on February 19, before the Lord Mayor, Frederick Massey (18), a messenger in the employment of Barclay & Sons (Limited), druggists' sundrymen, Farringdon Street, was charged with stealing from his employers a bottle of hair-curling fluid and twelve bottles of pills, of the total value of 10*s.* 9*d.* Edward Greathurst (17) was charged with receiving the same. Detective Chapman watched the prisoners in conversation in Aldersgate Street, and saw the articles pass from one to the other. Massey: "He didn't know they were stolen. I took the things on the spur of the moment. They were of no good to me, or to him." The Lord Mayor discharged Greathurst, but sent Massey to prison for seven days.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

How Money is Saved.

At the last meeting of the Belfast Board of Guardians Dr. McDonnell explained how the large saving on medicines was effected. The saving amounts to 2,000*l.* a year (see *C. & D.*, November 25, 1899, page 849), and has resulted from the L.G.B. declining to recoup any moiety of medicines not on the official list. Expensive medicines have not been ordered so much as formerly, and economic ordering and large discounts have done the rest.

Improving the Premises.

Messrs. Dobbin & Co. (Limited), chemists and druggists, have just finished the enlarging and refitting of their shop in North Street, Belfast. The place now presents a handsome and commodious appearance.

Personal.

The Lord Chancellor of Ireland has, on the recommendation of the Earl of Meath, appointed Mr. T. W. Robinson, M.P.S.I., director of Messrs. Hayes, Conyngham & Robinson, Kingstown, to the Commission of the Peace for the county

of Dublin. Mr. Robinson is said to be the youngest magistrate in Ireland.

Professor E. J. McWeeney, Dublin, has been appointed bacteriologist to the Local Government Board. The post is a newly-created one, and the duties include the inspection of all lymph issued to the various public-health departments in Ireland.

Quarterly or Half-yearly.

At a meeting last week of the Coleraine Poor-law Guardians a letter was received from Messrs. P. A. Leslie & Co., Dublin, contractors to the Union for the supply of surgical and medical appliances to the effect that they would execute no more orders until their account was paid. The Clerk said the letter must have been written under a misapprehension, as the bond provided for payment every half-year, while Messrs. Leslie thought they should be paid quarterly. He was directed to inform Messrs. Leslie accordingly.

Chemical-works Accident.

At the Waterside Chemical-works, Londonderry, last week, three men were engaged in manufacturing sulphate of ammonia from tar, when a pipe conveying ammonia burst and three men were asphyxiated. Two of the men were shortly afterwards restored to consciousness, but the third is still in a very precarious state.

Poisoning Case.

An inquest was held at Roscommon last week regarding the death of Michael Tierman, a herdsman, who had been found dying, and before his death stated that he had taken in error a mixture of corrosive sublimate and spirit of salt that he had been in the habit of using for sheep-scab. The evidence showed that the mixture was made with 2 oz. of the sublimate and the same of the spirit, and that death was accidental. Verdict accordingly.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Was it in a Poison-bottle?

On February 17 a young soldier on furlough in Dundee drank a quantity of lotion from a bottle in a friend's house, and died on the way to the Infirmary. The poisonous lotion was supplied by the Royal Infirmary.

The Volunteer Movement.

Mr. John Macintyre, chemist and druggist, and Provost of North Berwick, has sent a reply to a letter received from Sir Henry Fletcher, of the National Rifle Association, in which he advocates statutory half-holidays, so that young men could have time to attend Volunteer drills. Mr. Macintyre also thinks that the police should be trained to arms, so as to be available in emergencies.

To Buy Wholesale.

The Provision Committee of Dundee Parish Council has decided to recommend that on the termination of the current contract with a local chemist the necessary drug supplies should be procured from a wholesale house. Mr. D. J. McKinnon, chemist, has agreed to act along with the Resident Medical Officer of the Sick Poor Hospital in making up from time to time the orders for the articles required.

A Pharmaceutica Extra.

Mr. Maben's first post-graduate course of urine-analysis, which he has been delivering at the West of Scotland College of Pharmacy, has proved attractive and interesting, and the last of the series is to be delivered at the College on Monday evening, February 26. The object of the course has chiefly been to show those who have recently qualified how the knowledge which they have acquired can be applied directly to their practical advantage, especially in a direction which will enable them to assist medical men. The first of the lectures explained all about the physiology and physical

characters of the urinary secretion; then its pathological significations were dealt with; and in the succeeding lectures the principal tests for glucose, albumen, and other abnormal constituents were described and practically illustrated.

Personal.

Mr. G. D. Macdougald, F.I.C., of Dundee, has been appointed analyst for the burgh of St. Andrew's.

Mr. John Johnston, chemist, Aberdeen, and member of the Pharmaceutical Council, has been appointed a justice of the peace for the Granite City.

Mr. James Robertson, of the Cash Pharmacy, Chapel Street, Peterhead, has, owing to the serious state of his health, been obliged to give up business for the present, and is going to England.

Not a Poison-bottle.

A member of the troupe known as the Jubilee Singers had a narrow escape from poisoning on February 19 in Dundee. He had purchased 2 oz. of black draught which he took to his hotel. Shortly after on proceeding to drink from the bottle it suddenly occurred to him that something was wrong, and he found that he had lifted by mistake a bottle of the same size and shape containing a poisonous liniment. He at once took steps to empty the stomach, and suffered no inconvenience beyond a burning sensation in his mouth. The liniment had been obtained in Maybole, and was labelled "For external use—Poison," but the label was soiled and not easily read. The bottle was an ordinary 2-oz. short white vial.

French News.

(From our Paris Correspondent.)

PRESENTATION TO M. RICHE.—The friends and former pupils of M. Riche have arranged to present him with an souvenir to mark their appreciation of his services as a professor at the Paris School of Pharmacy from which he retires after a connection of forty years.

THE ILLEGAL EXERCISE OF PHARMACY "is the title of a word by M. Victor Bellenger, a Rennes lawyer, in which he has grouped and explained the various laws and regulations by which French pharmacy is controlled. He also shows the conditions necessary for the legal practice of pharmacy, as well as what constitutes illegal exercise of the Art.

INSURANCE FOR MEDICINE.—A Mutual Insurance Company in Paris has started a project for insurance against doctors and pharmacists Bills. The doctors are offered a sum down for each person insuring, and the pharmacist is asked to give a discount on the out-door relief tariff for medicines. So far, however, the idea does not seem to have developed.

CONGRESSES AT THE EXHIBITION.—The following are the dates in chronological order of some of the scientific congresses which have been arranged to take place during the International Exhibition at Paris:—*July*: Homœopathy (18th to 21st); Photography (23-28); Applied Chemistry (23-31); Professional Medicine (23-28). *August*: Pharmacy (2-8); Medicine (2-9); Physics (6-11); Technical Industrial Education (6-11); Dentistry (8-14); Hygiene (10-17); Electricity (18-25). *September*: Chemistry (20-22); *October*: Botany (1-6).

FRENCH COLONIAL PHARMACISTS.—"The Committee Paul Bert for facilitating French Pharmaceutical Expansion in the Colonies and Abroad" is the title under which an endeavour is being made to foster the expansion of French pharmacy. The principal mover in the matter is M. Carton, pharmacien, of Beauval, Somme. It is announced that positions have been found for pharmacists in Madagascar and other French colonies, and applications for similar posts exceed the number vacant. The question of languages appears to be a difficulty. There are vacancies in South America, but a good knowledge of Spanish or Portuguese is necessary. The laudable object in view is to diminish competition in France by creating openings for qualified men abroad and to assist

in facilitating the export of French pharmaceutical preparations.

A CHEMIST'S FAIRY TALE.—M. Duclaux, the eminent Chemist and Director of the Pasteur Institute, Paris, gave an interesting lecture on the subject of "Medicine" last week. The occasion was the opening of a School for Professional Lady Nurses. M. Duclaux gave his audience to understand that they must get a notion of dispensing medicines, and one or two things like that, and then they "will rapidly occupy an enviable place in society, next to that of doctors, and be received with honour everywhere." No doubt many of the young ladies wondered no one had told them of this pleasant easy calling before!

AN INFLUENZA-CURE.—The latest cure for influenza is the remedy of Dr. Borne, Deputy for Doubs, with which he has cured several of his colleagues in the Chamber, amongst them MM. Waldeck-Rousseau and Deschanel and President Loubet himself. As soon as one feels the symptoms the following prescriptions should, according to Dr. Borne, be obtained. Firstly:—

Chloroform-water	...	...	2 oz.
Water	...	...	2 oz.
Magnesia	...	...	2 dr.
Salol	...	...	15 gr.
Betol	...	...	15 gr.
Antifebrin	...	...	15 gr.
Syrup of orange-flowers	...	...	1 oz.

This must be well shaken, and a tablespoonful taken every fifteen or twenty minutes during the first day.

On the following days one should take two cachets on rising in the morning and two on going to bed at night, composed as follows:—

Magnesia	...	...	2½ dr.
Betol	...	...	75 gr.
Salol	...	...	45 gr.
Terpin	...	...	45 gr.

For twenty cachets.

Dr. Borne says his principle was to disinfect all the digestive and respiratory tubes. The foregoing prescriptions are the result of his experiments, the doses being modified according to the age and condition of the patient. He considers the replacement of antipyrin by antifebrin important, as antipyrin often affects the kidneys.

ITEMS OF INTEREST.—Four pharmacists of the French Army, one of the Navy, and one Colonial pharmacist have been nominated Knights of the Legion of Honour. M. Baudran has obtained the grade of Doctor of Pharmacy from the Paris School of Pharmacy with a thesis bearing the title "Les Émétiques." He is a member of the Committee of the General Association of French pharmacists. The proprietors of the trade-mark "Creoline" have obtained judgments against two pharmacists for infringement, but the plaintiffs' priority to the use of the word does not appear to be established to the satisfaction of the General Association, and any further actions will be fully defended. In the current Bulletin of the General Association, M. Riéthe, the President, gives a short review of the Society for Mutual Assurance against Dispensing Accidents. The past year has been a very favourable one, and it is hoped that the current subscriptions will be devoted to a reserve fund to guard against possible eventualities. The annual meeting is in April.

South African News.

FOOD AND DRUGS PROSECUTIONS.—Four Cape Town chemists have been summoned to appear before the magistrate, under the Food, Drugs, and Seeds Act. Their names are Messrs. Cameron & Hamilton, Mr. Rohm, Messrs. Hazell & Son, and Vogelgezang & Co. This is the result of the recent raid on chemists by the police, reported in THE CHEMIST AND DRUGGIST, January 13.

"CUTTING" IN CAPE TOWN.—Chemists would appear to have good cause for grievance in Cape Town. Expenses are almost double out there, yet certain soft goods-houses retail Pears' Soap at 4s. 6d. a dozen; it costs 4s. 5d. to land. Phosferine again has to be retailed at 1s. 3d.; the wholesale firms (Cape Town) charge 16s. 6d. per dozen, less 5 and 5 per cent. There are several similar instances of needless "cutting."

East Indian News.

MR. J. STANLEY SMITH (Bertie-Smith & Co., wholesale druggists, Bombay) is on the eve of departure for this country.

INDIA IN JAPAN.—A large number of Indian native merchants have lately taken up their abode in Yokohama, several of them being indigo-merchants.

A. & N. STORES AT CALCUTTA.—The erection of the premises that are to house "The Stores" proceeds apace in Calcutta—Major Hildebrand and the architect who erected the present Bombay premises being on the spot. It is believed that October, 1901, will see the opening of the business.

CHEMISTS AND THE PLAGUE.—In the Bombay bazaars only are things unsettled and uneasy, the European houses being satisfactorily busy. Corners in disinfectants (particularly bichloride of mercury, carbolic acid, and chloride of lime) are prevalent about this time, for firms are looking up stocks for the ensuing municipal contracts.

THEFT OF GOLD.—Mr. John Carey, assayer and cyanide chemist of the Balaghat Gold-mining Company, Kolar Gold-fields, India, who was arrested for stealing 76 oz. of gold, valued at 4,500r. (see *C. & D.*, February 3, page 205), has been sentenced to three months' rigorous punishment, and to pay a fine of 1,000r.; in default three weeks' further imprisonment.

AN OFFENSIVE TRADE.—Captain Vickers, Deputy Sanitary Inspector for Madras, has been looking round the city of Coconada, where are situated some of the largest castor-oil factories in India. He finds that a prevalent practice is to soak the castor-seed husks in pits and allow the resultant compound to putrefy, with the result that "the smell created is particularly unpleasant, and practices of this kind should be stopped, at least inside factories."

INDIAN VALUATION TARIFF.—The *Board of Trade Journal*, of February 8 (now published at 1d. by H.M. printers), contains a list of goods the import-tariff valuation of which has been amended by the Finance and Commerce Department of the Indian Government. The following are among the articles named, together with the amended valuation:—Mineral and aerated waters, *ad val.* Ceylon cardamoms, 200r. per cwt.; ehillies, dry, 10r. per cwt.; cloves, 22r. per cwt.; dry ginger, 13r. per cwt.; mace, 1r. 2a. per lb.; nutmegs, 8a. per lb.; pepper, black, 30r. per cwt.; all other sorts of spices, *ad val.* Sulphuric acid, 1½a. per lb.; alkali, 1r. 8a. per cwt.; alum, 4r.; arsenic, 21r. 8a.; bicarbonate of soda, 6r. 8a.; sal ammoniac, 26r.; copper sulphate, 20r.; sulphur—flowers, 5r. 8a.; roll, 5r. 4a.; rough, 4r. 8a. per cwt. All other sorts of chemical products and preparations, including saltpetre and borax, *ad val.* Aloes, black, 20r. per cwt.; Socotrine, ditto, 30r.; asafetida (Ling), 65r. per cwt.; coarse ditto (Lingra), 25r.; calumba, 7r.; camphor, refined, 1r. 6a. per lb.; crude, 15a. per lb.; cassia lignea, 28r.; china-root, rough, 9r. 8a.; scraped, 15r.; cubebs, 13r.; galangal, 10r.; pellitory, 33r.; peppermint crystals, 7r. per lb.; salep, 100r. per cwt.; senna, 7r. per cwt.; storax, liquid, 44r.; quicksilver, 1r. 12a. per lb.; cajuput oil, 1r. 12a. per quart; cassia oil, 3r. 4a. per lb.; coccanut, 16r. per cwt.; linseed, 1r. 12a. per Imp. gal.; otto sorts, 15r. per oz.; copal gum, 70r. per cwt.; cutch and gambier, 14r. gamboge, 15a. per lb.; gum ammoniacum, 15r. per cwt.; arabic, 22r.; bdellium, 13r.; benzoin, 40r.; bysabol (coarse myrrh), 22r.; Persian gum (false) 9r. per cwt.; kino, 10r. per cwt.; myrrh, 28r.; rosin, 4r. 4a.; all other sorts of gums, gum-resins, and articles made of gum or gum-resin, including caoutchouc and guttapereha; turpentine, 2r. 6a. per Imp. gal.; rose-water, 2r. per Imp. gal.; dried rose-flowers, 14r.; patchouli-leaves, 12r.; zedoary, 12r. per cwt.; castor-seed, 6r.; cumin, 17r.; linseed, 6r. 8a.; methi, 5r.; mustard, rape, or sarson, 8r.; poppy, 6r. 8a.; quince, 75r.; sorira, 28r.; til or jinjili, 7r.; "all other sorts," *ad val.*; soap, *ad val.*; bottle-corks, 1r. 8a. per gross; and vial-corks, 6a. per gross. All drugs, chemicals, medicines, narcotics, dyeing and tanning materials, spices, quicksilver, essential oils, gums, paints, perfumery, seeds, soap, mineral and aerated waters pay an import-duty of 5 per cent. calculated on the above valuations. Quinine and all alkaloids of cinchona are, however, admitted duty free, as is also gum olibanum.

Notes on Trinidad Pharmacy.

By DR. WALTER H. INCE.

TRINIDAD is an island roughly forty miles square, with a population of 250,000 inhabitants. This population is concentrated in three towns: the Port of Spain (40,000), San Fernando (7,000), and Arima (4,000).^{*} One can walk in certain directions for miles and miles without



THE SCOTCH PHARMACY, SAN FERNANDO
(Mr. A. S. Laing's).

coming across a single human habitation, the roads being mere tracks bounded by primeval forest. Here and there one comes across isolated villages consisting of a few houses, whose general wants are catered for by a small civil-suelling store. In such outlying spots, naturally, a pharmacy of any description is an impossibility. These conditions taken into account, it is not to be wondered at that the pharmaceutical ideal languishes.

It is probable that the number of firms who confine themselves to strict pharmacy in London, with its vast population, might be counted on the fingers of one hand, hence the absence of these in Trinidad need create no surprise.

Little wonder, when one buys fire-arms at the linen-draper's, that the pharmacist stocks pens, ink, and paper.

In England the pharmacist has to contend with innumerable forms of competition—the cutting-prices of stores and semi-wholesale firms, the draper offering sundry drugs and remedies, the grocer and general dealer, both encroaching on the ground of the legitimate pharmacist; not to mention the sale of patents, tabloids carbolic acid, castor oil, and cards of penny glycerin.

It may be pleasing to learn that this is by no means the case in Trinidad: the tables are turned—it is the pharmacist who poaches on the preserves of the general trader. Besides official and non-official medicines, various articles usually obtained elsewhere in Europe are stocked.

Nearly every pharmacist retails wines, groceries, and household requisites; is an agent for various tinned butters

and biscuits, disinfectants, and bottled beer; he not infrequently adds stationery and a burial agency to his multifarious assortment.

The following is a typical advertisement:—

MEDICAL HALL,

Corner of Park and St. Vincent Streets, PORT OF SPAIN.

A. G. de SILVA & CO., PROPRIETORS,

Call attention to their full lines in their several departments, comprising an excellent assortment of the Best Articles of

PURE DRUGS AND MEDICINES,

Patent Medicines, Household and Toilet Requisites, and every article usually found in a First-class Drug-store.

Groceries, Wines, Confectioneries, and Fancy Biscuits.

School-books and other Educational Books, Journals and Fashion-books, Stationery, Maps, Mariners' Charts, Pens, Inks, and every description of requisites for Schools.

COFFINS, COFFIN-TRIMMINGS, &c.,

And everything necessary for the Interment of the Dead.

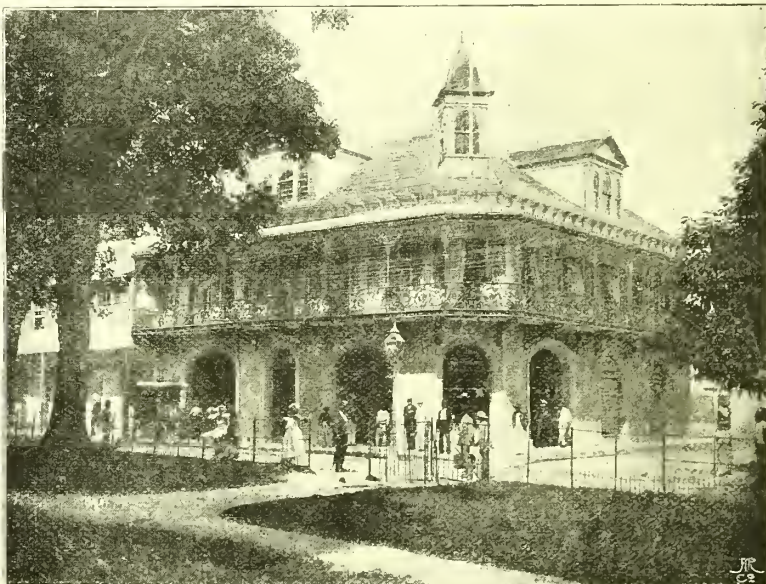
Methylated Spirits Prepared in Bond.

Agents for Mother Payn's Tetter Cure.

The Trinidad pharmacist has a monopoly of patents—English, French, and American—and everything coming under the head of "druggists' sundries." He has almost a monopoly in perfumes (used to an extent quite unknown in colder climates), high-class preparations for the hair, teeth and toilet requisites. A Trinidad grocer would stare if he were asked to supply camphorated chalk, So-and-so's pills, or sod. bicarb.

The prices our pharmacist obtains for tinctures and for medicines would make his struggling English *confrère* green with envy.

This is, of course, one side of the medal. Now for the reverse. It is true that his charges seem enormous, but then one must consider the quantities disposed of. Owing



THE ENGLISH PHARMACY, PORT OF SPAIN.

(Under the direction of Mr. A. S. Laing, President of the Trinidad Pharmaceutical Society.)

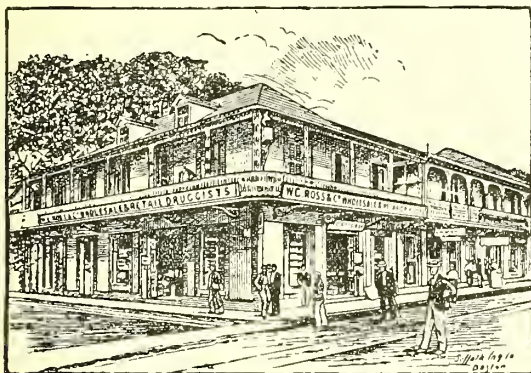
to a very large French element in the population and the comparative nearness of America, numberless articles, mostly toilet-requisites, must be stocked, in a variety quite unknown in England.

Then again, although the import-duty for tinctures, liquors, aquæ, &c., is low, these rapidly deteriorate, and stock must be constantly replenished by small quantities from home. Damp, insects, heat, and sunlight play havoc with fancy and perishable articles.

Another most important factor must be taken into consideration—the buying public.

As before stated, the population is scanty, and the public which patronises a pharmacy is comparatively small: possibly not one-fifth would ever trouble a pharmacist for medicine—or, indeed, anything else.

Every estate employing indentured labour, forming one-third of the population, is bound to provide and maintain a hospital and dispensary, with free drugs and medical attendance. The dispensary is under the control of a dispenser, and no goods are sold to the general public. As



THE COLONIAL DISPENSARY, PORT OF SPAIN

(Messrs. W. C. Ross & Co.).

a matter of fact, in the neighborhood of these estates there is no general public to sell anything to.

Again, the backbone of the country—the small proprietor working his own land and the hired labourer—would never dream of going to a “doctor shop.” This is also characteristic of all the so-called lower orders.

The whole island teems with plants of high medicinal value, the virtues of which—supposed or otherwise—are well known to most of the coloured inhabitants, and any old lady is more than pleased to be consulted on any known or unknown disease, and is equally ready to make up a decoction or infusion from some local plant for administration.

Personally I have great faith in many of these drugs: twice I have been doctored by “bush tea” with the greatest success. Once when down with fever, my cook interfered in the medical man’s treatment. My temperature was 102°, and I was certainly feeling far from well. “Kincen!” said the lady on my explaining the nature of the remedy—“done tak kineen, dat doctor-shop rubbish—tak some bush tea: de fever do rotten yer bone so.” She prepared a mess from plants culled in the yard, and gave me, who had no strength to resist, a calabash full (about 3xx.) of warm, filthy-tasting infusion. The result was nearly instantaneous: the draught induced a phenomenal perspiration, and in three hours the temperature was normal—and so remained.

The creole thinks it necessary for health to clean the system once a year. This is no ordinary cleansing, but is carried out with a thoroughness, and I might say heroism, worthy of a better cause. I am not sure, however, that in the long run it is not beneficial.

If possible, at the beginning of the rainy season a week’s holiday is obtained to undergo the cleaning-process. My cook at this period was evidently very much off colour, and the meals left much to be desired. I asked for the cause. She informed me that she was just at the end of her yearly offering at the altar of Hygeia. Her week’s *régime* I give in her own words:—“I takes a coolin’ first—for bilious—a carrot coolin’, an’ den I takes 5 cents (2½d.) antimonian wine, den 5 cents castor oil, den 3 cents senna, den some manna and milk, den lepusenne” (?). “What’s that?” “Me take some sib [sour orange], rhubarb, senna, ginger, ‘epicana’ root—boil it a day an put it a night in de dew, an’ nex’ day drink it.” “Oh! and what then?” De thé payé—that’s bush.”

(“Bush” is a term used for any plant not having a distinct economic—saleable—value). “Den a black draf’, den lani composé—dat’s a made-up medsin [compound jalap powder], an’ for tea I drink medciné” (physic nut?).

I may add that after this seven days’ course the lady in question survived, though she had to admit that her “stomach did so disagreeable.”

This is by no means an uncommon case—in fact, with the coloured population I am of opinion that it is the usual one.

Another week’s medication may be recorded:—

Monday. 3 cents senna.

Tuesday. 5 cents castor oil.

Wednesday. Lepousenne.

Thursday. 5 cents manna and milk.

Friday. Lani composé, or cas (?). “That’s jus’ like likriss.”

Saturday. 5 cents black draf’.

Sunday. Ca-a-miel (camomile tea), an’ some bush tea as carousal (sour sop).

Although this seems a somewhat formidable list, it brings but scant increase to the income of the pharmacist—23c. in all, or nearly a shilling. This amount practically suffices for the annual medicine-bill, as other ailments are usually treated by purely local remedies.

This is scarcely the place to enlarge on the extra-pharmacopœia of the native population, but it might be mentioned that, besides the “active principles of plants,” spells, charms, incantations, and magic are not infrequently resorted to, either alone or in conjunction with native remedies, for fighting disease. With these anything ranging from yellow fever or a broken leg to unrequited love or failure in bread-making may be successfully treated.

PERMISSION TO PRACTISE THE CRAFT

may be obtained either by passing, after three years’ apprenticeship, a local examination held by the Medical Board, or by registering the certificate of a recognised pharmaceutical body. Compared with the European standard, the examinations are excessively easy. For instance, the budding pharmacist is expected to gain all the knowledge of chemistry required in about twenty to twenty-four hours—i.e., a three months’ course, consisting of two lectures or two hours’ practical work a week. The other branches of knowledge are as lightly dealt with.

The affairs of the pharmaceutical world are looked after by the Trinidad Pharmaceutical Society, to which all the prominent members of the craft belong. The objects of the Society are:—

1. The promotion of measures calculated to benefit and protect the trading interests of its members, and the interests of pharmacy in general.
2. The collection and dissemination of information relating to pharmacy and dispensing.
3. The defending and enforcing the rights and privileges of druggists.
4. The promoting, supporting, or opposing legislation or other measures affecting the aforesaid interests.
5. The promoting of a more cordial intercourse between the members of the profession of druggists, and the raising it to a higher level.
6. The doing all such other lawful things as are incidental or conducive to the attainment of the foregoing objects.

The Society holds quarterly meetings for the discussion of subjects of pharmaceutical interest; papers are read on local drugs and preparations, suggestions for improvements, dispensing difficulties, rules and regulations relating to pharmaceutical matters—in fact, everything of general or local interest connected with pharmacy.

The Society has done good work in suggesting alterations in the regulations respecting the privileges of pharmacists in their relation to the medical profession and the public.

Besides the fully-licensed pharmacists, a few small shopkeepers in the outlying districts may obtain a permit to sell certain quantities of packed drugs. This permit is never granted unless it can be proved that it will in no way interfere with the licensed druggist.

The following extract from the new Ordinance for the consolidation of the law relating to the practice of medicine, surgery, dentistry, and sale of drugs (Ord. 28, 98) defines the position of the pharmacist:—

The Council of the Medical Board may grant licences to fit persons to practise as druggists and assistant druggists. Any

person of good character entitled to practise in Great Britain or Ireland as a pharmaceutical chemist, or chemist and druggist, or an apothecary, shall on payment of 5*l.* be entitled to a licence as a druggist.

A yearly licence must be obtained for every shop for the retail of poisons and drugs or the compounding or dispensing of medicines, and a licensed druggist must be in attendance therein. Any shopkeeper in a rural district may, on the recommendation of the warden and the medical officer of the district, obtain permission from the Council to sell specified drugs in that district.

The penalty for keeping without a licence a shop for the sale of poisons or drugs (except patent or proprietary medicines in wholesale packages) is 10*l.* [The italics are mine.]

WHAT IS THE OUTLOOK

for anyone wishing to start a pharmacy in Trinidad? According to what I have seen, I should think for anyone without capital—none; with capital—that he would do better elsewhere.

The conditions of life and people differ so greatly from the English that an outsider would be quite helpless for some considerable time. The great majority of the people do not speak English, but French or Spanish *patois*, or an equally incomprehensible Coolie English. Prices are calculated in dollars and cents, but the currency is shillings and pence, which is very confusing to the uninitiated.

The local supply of pharmacists (creoles trained and educated in the island) is not only equal to, but exceeds, the demand, and any Englishman, simply going out on speculation, would court failure.

War Notes.

MILITARY HOSPITALS.—There is now a base-hospital at Mooi River, Natal, and the hospital-camp at Rondebosch. Cape Colony, is also in working order.

LUMSDEN'S HORSE.—Amongst contributors to the local (Calcutta) corps being raised for service in South Africa Messrs. Bathgate & Co. have given 500*r.* and Mr. R. Scott Thomson 200*r.*, both of Calcutta.

GENERAL FRENCH'S IMPORTANT MOVEMENT in the Orange Free State brought into the engagement at Jacobsdal and Kimberley the Mounted Infantry City Imperial Volunteers, who acquitted themselves well. A member of that corps is Mr. Alfred Salinger, whose portrait we give. Mr. Salinger was traveller for the Vinolia Company in the Midlands before he left for the front, but previously he had travelled for them in South America, and has had considerable experience in roughing it, having crossed the Andes from East to West with hundredweights of samples, and himself on mule-back. Before he left for South Africa he told us that he expected the roughing it out there would be quite as bad as what he experienced in South America, and he



MR. ALFRED SALINGER.

was quite prepared for it. Mr. Salinger can ride a horse well, is an enthusiastic volunteer, a good shot, and a good fellow. The Vinolia Company are keeping his place open for him pending his return.

OTHER CHEMISTS AT THE FRONT.—Messrs. McJanet & Co., chemists, East London, inform us that two of their former assistants are at present in or near the fighting line. Trooper Richard W. Thomson is with Brabant's Horse and Mr. Philip R. Roux is at Mafeking.

PRISONERS AT BLOEMFONTEIN are reported to be having their bodily ailments attended to by a Dutch chemist, and it

is easy to guess how they fare in this direction. It is believed that the Bloemfontein prisoners are receiving much better treatment than those who find their way to Pretoria.

PERMANGANATE OF POTASH is still in demand at the Cape. The rains Modder River way must have washed out the stain imparted to Mr. Atkins's horse, for the military have purchased all available stocks in the colony. A wag in the drug-trade says the British general uses it for washing Boer prisoners with—the laic-veldt Boer never washes himself on any occasion, and does not undress very often.

KIMBERLEY'S MEDICAL SUPPLIES.—The report that Kimberley ran short of "Red-Cross" field-appliances, as well as food, ought to be generally discredited. It is true that some chemists there had to dine off horse-flesh and similar luxuries, but a big stock of goods was bought with a view to rendering aid to the wounded. The hospital there wired to Cape Town from time to time for supplies, which in all probability got through all right.

A C.I.V. MAN writes to us in regard to his experience on the way out to the Cape. He is one of the pharmaceutical contingent, and we give some of his notes:—

To many of us travelling on the "troop-deck" came as a mild surprise at first I must admit. After the luxurious accommodation one is used to in the saloon it takes a day or two to shake down to the crude simplicity of the soldier's life on a trooper. Our daily routine is more or less as follows:—Réveille 6 A.M.; we scamper up to the poop-deck in pyjamas, where a sail has been arranged as a plunge bath. We dress and attend an early parade on the boat-deck at about 6.45 A.M., barefooted, for physical drill; mess orderlies for the day draw rations (meat and bread); at 8 A.M. breakfast is drawn by the orderlies and eaten by all; at 9.15 A.M. a two hours' drill commences for those who are not on guard, hospital, or mess orderly duty. The drill comprises musketry exercises, lectures on signalling, bugle-calls, care of horses, &c. At 9.30 the guard parades, and proceeds to relieve the guard of the previous twenty-four hours; at 12.30 dinner is drawn and eaten, and the afternoon is generally free. The work of the mess orderlies is by no means light, and includes the drawing of rations and of the meals from the cook-house, the swabbing and scrubbing of the decks, tables, forms, washing up the pots and pans, peeling potatoes, carrots, &c. It has been decidedly amusing to watch with what zest, if not always crowned with success, many of the men undertake such duties, it being remembered that among our troops we have barristers, solicitors, bankers' sons, and men of all classes. From observation I note that the well-bred man does his work, however unpleasant, in as thorough a manner as the more important and more pleasing duties he is used to be called on to perform. Tea is at 4.30 P.M., and lights out at 9 P.M., although it is often later before many of us get into our hammocks for the night.

An unusual privilege was granted us at Madeira—everyone was allowed short leave for three hours, which the majority availed themselves of, all being back in good time. I understand this is a privilege not granted to troops as a rule. I noticed for the first time a moon rainbow. This I saw about 4 A.M., as we were entering Funchal Harbour at Madeira. There was a brilliant full moon behind us, and heavy rain-clouds overhanging the island. The arc looked like the ghost of a sun rainbow, and although the colours of the spectrum could, I think, be distinguished, they had a washed-out appearance.

The troops being ordered to wear their hair very short, the ship's barber was overwhelmed with custom until our regimental barbers got their sea-legs and professional courage, and brought out their tonsorial appliances. They are two "Inns of Court" men, who had apprenticed themselves for a week to a hairdresser at home before coming out. They do well, but they make a great use of the clippers, as their work is voluntary, and they do not want to see their customers too frequently.

Nearly all the troops have been inoculated *en voyage* with typhoid serum, which knocks them up for two or three days, so that the hospitals have been pretty full. Of course those who have already had typhoid were not done, neither were the "conscientious objectors."

On the 23rd inst. we had the misfortune to lose one of our colour-sergeants; he had been ill almost from the time he came on board. He developed pneumonia, and death supervened in spite of the greatest care and attention bestowed on him by the ship's officers and his comrades. His death cast a gloom over the ship. He had previously held rank as a captain in the Inns of Court Rifle Volunteers, and had reverted to the ranks in order to get out with our regiment.

We arrived at Cape Town on January 29, and had a hearty reception from the people gathered at the Docks. We shall disembark to-day, and proceed to camp at Green Point. Lord Roberts paid us a complimentary visit.

Marriages.

BURNAGE—RICE.—On February 14 at the Bible Christian Chapel, Newport, I.W., by the Rev. Mr. Sweet and the Rev. Mr. Chapman, W. A. Burnage, chemist and druggist, to Nellie, third daughter of the late Mr. James Rice, Poleclose Farm, Carisbrook.

FIGGIS—WOODALL.—On February 15, at New College Chapel, Hampstead, by the Rev. T. H. Darlow, M.A., assisted by the Rev. J. B. Figgis, M.A., of Brighton, uncle of the bridegroom, Howard Bradley, eldest son of Mr. Samuel Figgis, of Montagu Grove, Hampstead, to Edith Annie, eldest daughter of Mr. Corbet Woodall, of Thornlea, Fitzjohn's Avenue, Hampstead.

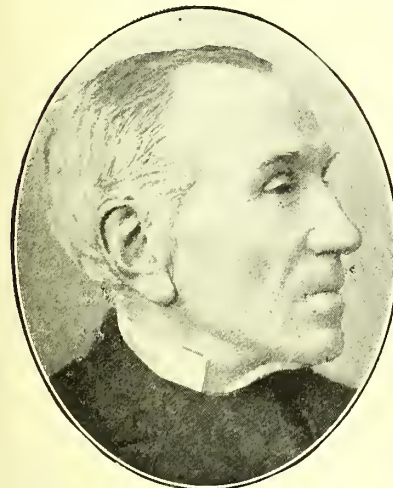
PARSONS—ANDERSON.—On February 15, at Park Church, Glasgow, by the Very Rev. Principal Story, D.D., assisted by the Rev. W. H. Macleod, Charles Cunningham Scott Parsons to Mary Constance, daughter of Mr. T. McCall Anderson, M.D., Professor of Clinical Medicine, University of Glasgow.

Deaths.

DITTMAR.—A fortnight since we briefly mentioned the death of Mr. Wilhelm Dittmar, managing director of the Chemische Fabrik auf Actien Vormal's E. Schering, Berlin. Mr. Dittmar's death occurred on February 1, after a comparatively short illness. He was in his 49th year, having been born on April 18, 1851. He was well-known in English chemical-manufacturing circles, and had frequently been seen in the chair at meetings of chemical manufacturers in this country. He would soon have celebrated his twenty-fifth anniversary in the position he held in Schering's, which he took up in October, 1875, after having been several years with Mr. E. de Haen, of List.



ELLIOTT.—At Berwick-on-Tweed on February 16, Mr. John Elliott, chemist and druggist. Aged 84. The late Mr. Elliott was the well-known sheep-dip manufacturer, full particulars of whose remarkable career we gave in our issue of September 9, 1899 (page 458), when he posed as one of our pharmaceutical veterans. He celebrated his golden wedding August 26, 1899, and is survived by Mrs. Elliott who is over 90 years of age.



FRANCIS.—At Hertford on February 9, Sarah Inglesby, widow of the late Mr. George Baggett Francis, pharmaceutical chemist (Messrs. Hearon, Squire & Francis, wholesale druggists, Southwark). In her 73rd year.

MITCHELL.—At Bridge of Weir on February 16, Isabella Drysdale, widow of the late Mr. John Mitchell, L.R.C.S. (of the Glasgow Apothecaries' Company). Aged 76.

PHILLIPS.—At the Woodlands, Pontypool, on February 17, Mr. Edward J. Phillips, J.P. Aged 80. The deceased for many years carried on business as a chemist in High Street, Newport, where he established an important connection which was taken over on his retirement by his nephews. Mr. Phillips took an active part in public affairs, and had always been closely identified with the commercial concerns of the county. He was Mayor of the County Borough of Newport as far back as 1864. Subsequently Mr. Phillips removed to Pontypool, where he was Chairman of the local Bench of Magistrates, and until his fatal illness was most regular in his attendance at the Court sittings. He was also Chairman of the Pontypool Board of Guardians, a director of the old Monmouthshire Railway Company, and latterly of the Great Western Railway, upon the former company being absorbed by the latter. He was also Chairman of the Newport Gas Company, and a member of the Newport Harbour Board and the Monmouthshire Chamber of Agriculture, besides being connected with numerous societies. Mr. Phillips was a Conservative and a Churchman. He came of an old Carmarthen family, and was a younger brother of Mr. Griffith Phillips, chemist and druggist, Cardiff, who died at Whitechurch last June. By the urbanity of his character and by his practical sympathy the deceased gentleman gained the respect and esteem of the entire community. He married Miss Burnell Jones, daughter of Captain Jones, R.N., but his wife predeceased him about thirty years ago. He leaves two sons and two daughters.

SHIPTON.—At Liverpool last week, Mr. Joseph Tertius Shipton, for many years laboratory-manager to Messrs. Clay, Dod & Co., wholesale druggists, Liverpool.

THORP.—At 22 Sinclair Gardens, West Kensington, on February 13, from heart-disease, Mr. William Thorp, B.Sc., an ex-Chairman of the London Section of the Society of Chemistry Industry. Mr. Thorp was an old student of the Royal College of Chemistry, and until recent years he had been associated with the colour-industry as chemist to Messrs. Berger, Spence & Co., Homerton. He retired from this a few years ago, and since then had been acting as a consultant, and was engaged in literary work. In his early days he was an authority on water-analysis, and gave evidence along with Sir Edward Frankland to the Royal Commission on the Metropolitan water-supply, his enthusiasm on that subject having secured for him the sobriquet "Water Thorp." He was a man of wide knowledge on chemical subjects, and in private life was highly esteemed by his friends. The funeral took place at Abney Park Cemetery on Tuesday of this week, when representatives of the Society of Chemical Industry were present.

Recent Wills.

BEVAN.—The value of the estate of the late Mr. Chas. Fredk Bevan, J.P., pharmaceutical chemist, 62 Church Street, Harwich, who died on October 11, 1899, in his 79th year, has been entered for probate at the sum of 3,885*l.* 10*s.* 1*d.*

HALE.—The will of the late Mr. Frederick Walter Hale, patent medicine proprietor, Chandos Street, Covent Garden, has been proved by Miss Jane Foad, the executrix of the testator, whose personality was entered at the sum of 1,070*l.* 11*s.* 1*d.*

LEWINTON.—The will of Mr. Alexander Bellamy Lewinton, chemist and druggist, 16 Cleveland Street, W., who died on September 10, 1899, has been proved by Mrs. Elizabeth Murray, 16 Cleveland Street, the surviving executor of the testator, whose estate was sworn at 267*l.* 12*s.* 11*d.*

NIX.—The will of Mr. William Nix, chemist and druggist, Billericay, Essex, who died on October 7, 1899, has been proved by Mrs. Nix, the widow, and Mr. J. B. Nix, chemist and druggist, Billericay, the brother of the testator, whose estate was 332*l.* 16*s.*

SMITH.—The gross estate of Mr. David Smith, chemist and druggist, High Street, Stroud, who died on October 5, 1899, has been sworn at 4,129*l.* 9*s.* 11*d.*, including 3,795*l.* 0*s.* 2*d.* net personality; his executors are his son, Mr. Hedley Cross Smith, chemist; Mr. H. E. Niblett, mineral-water manufacturer; and Mr. Percy Witchell, solicitor, Stroud.

Our Town Traveller.

IN the course of my peripatetic career during the past few weeks I have heard grumblings loud and, in some cases, deep, concerning the partial stagnation of trade caused by the present state of affairs in South Africa. As far as I can gather trade generally is not as yet particularly affected, but money is scarce, and in the present unsatisfactory condition of things no new commercial avenues are being opened out, while, of course, trade with South Africa is carried out with difficulty.

DRUGS AND SUNDRIES.

The showroom of Messrs. Evans, Lescher & Webb, Bartholomew Close, E.C., with its distinguished furnishings and its many items of interest, is always a delightful place to visit, and I went there last week to renew my acquaintance with it. It is the only place of the kind in the City where one can see a permanent exhibition of everything which a pharmacist requires in his business. It would be invidious to try and select one or more out of the many excellent *materia-medica* specimens to be seen, but my attention was attracted by a piece of *Aloes Barb.* which had the fine liver colour and conchoidal fracture which we are taught to look for by the textbooks. There were also fine lumps of gum *guaiacum*, gum *draconis*, many varieties of gum *acacia*, and a curiosity in the shape of a Turkey colocynth apple of abnormally large size. I had a peep at the "model shop" which occupies one end of the room, and examined the new shield-labels on the shop-bottles, which have gold instead of the usual white enamelled backgrounds, and are thereby enhanced in appearance, while the legibility of the label is in nowise detracted. Another useful innovation was a line of labelled drawers devoted to odds and ends such as eorks, bandages, lint, chip-boxes, and so on. Often these things, even in the best-regulated pharmacies, are kept in odd unlabelled drawers, and when wanted a certain amount of confusion and delay is occasioned until the proper drawer is found. The labelling system naturally tends to order and expedition. The surgical-instrument department is not overlooked, and the sundries of "Savar" are too numerous to detail, and too well known to require it. I notice that the new line of "Hanover" cameras are on view, and that two new counter-adjuncts have been brought out—viz., ginger-wine essence, put up in 4-oz. heavy ovals, with bright coloured labels, and digestive cachets, in cardboard boxes, to retail at 6/7. and 1s.

The new half-yearly price-list just issued by the firm is a handsome, useful, and well-printed volume, bound in green limp cloth. Besides a complete list of drugs and chemicals and their prices, the book contains full particulars of the firm's specialities and sundries, and a list of American, English, French, and German patent medicines and proprietary articles. The shopfitting section is also of first-class importance.

BRUSHES AS A CIVILISATION-INDICATOR.

A call which I made at Messrs. G. B. Kent & Sons' big warehouse in Farringdon Road, E.C., led to an interesting conversation with Mr. Harold Kent, the senior of the brothers who conduct this gigantic brush-business, on the use of toothbrushes. It seems that the firm have difficulty in keeping pace with the demand for toothbrushes. "Why?" I asked. "Well, the strike put us back a bit," said Mr. Kent, "and the demand for toothbrushes has been growing enormously of late. I believe it is really due to the increasing knowledge of the masses. People are getting to know that 'clean teeth' frequently means 'clean bill of health.' Board-school children are taught to brush their teeth; public institutions, even workhouses, supply their inmates with a brush each; and, you know, this war has taught the Volunteers what the regulars have long known—that unsound teeth may keep a man from the front. Yes, it's growing intelligence, better education, that is doing it."

"Tell me what that means in figures, if you can, Mr. Kent. Does it mean 10, 20, or 50 per cent. more toothbrushes?"

Mr. Kent thought a little and remarked, "I would put it at 40 per cent. more." "Since 1898?" "Ye That

is an interesting fact, I think. An old fellow-traveller of mine told me that when he visited the United States thirty years ago he found the hotel toothbrush (*not* in Boston) chained to the lavatory wall, and I have heard of something the same in a Do-the-Boys' school. The progress is immense. But there has been another way of progression lately: prices have gone up—toilet and household brushes, 10 per cent.; painters' brushes, 15 to 20 per cent.; badger shaving-brushes, 30 to 35 per cent. There Mr. Kent stopped and explained that his firm have not advanced the price of "Kent's" toothbrushes, although the cost warrants the advance, but low-grade goods are dearer, and those who want their own names on the brushes have to pay 6d. a dozen more. Messrs. Kent have ready a new catalogue which they have got up specially for chemists.

DELICIOUS.

When walking through Mount Pleasant, Clerkenwell, I suddenly became aware of a subtle, all-pervading perfume. No pharmacy was in sight, and the fried-fish shops in the distance suggested other odours, so I fell back on a friendly policeman for an explanation. Thus we conversed:—

"Oh, cerulean custodian of grim Clerkenwell,

Prithee do not think me officious;

But tell me whence cometh this very nice smell?"

"Why, bless you, it's simply Dylissia's!"

With which the punning policeman directed me to No. 19, where I found that Messrs. Durant & Co. had extended round into Rosebery Avenue. In these new premises the company's girls were busy wrapping and packing "Dylissia" toilet-soap, one of the firm's latest specialities. Business was good, the manager told me, and in soap—booming. This new soap (a 4d. line) and the 6d. shaving-sticks have already been praised in the *C. & D.*, and I can endorse all that was said about them. "Dylissia" specialities are very tastefully got up, none more so than the sachets, as the annexed drawing of an envelope shows:—



The envelope is printed in six colours, the flowers representing the perfumes used in the series of six. Another tasteful and striking speciality is "Dylissia" tooth-powder, which is put up in a bronzed-tin box, which has rather a cute notion attached to it—i.e., beneath the circular band is fixed a piece of thin wire which keeps the lid closed, and helps to open the box when required by tearing through the centre of the band. I was also shown 1s. perfumes in rectangular glass-stoppered bottles. There are twenty varieties of them, and they look good value; so does the violet powder, which has lately been improved in get-up by the addition of a perforated lid to the floral tin in which it is packed. Another pretty article is a shell-shaped sachet tied at the edges with heliotrope ribbons, and hand-painted on the top with appropriate flowers. The lower side of the shell has two or three holes to allow the perfume to be distributed.

ON THE ROAD TO MANDALAY.

It is a far cry from St. James's Walk, Clerkenwell, to Burmah, but Messrs. T. F. Bristow & Co., whose factory is in the former, and part of their business interest in the latter, know how to get there. They know the Burmese tastes in perfumes, and have invented several fragrances which are intended to give strength to the links between the Old Country and her empire in the East. The perfumes are

christened "Gangow," "Pan-Natha," and "Kadow," and are prettily produced in green-capped, glass-stoppered bottles with pink bows, and a picturesque gold-block label coloured with Oriental luxuriance. Each bottle reposes on a pink pillow in a box of Oriental significance. Side by side with these temptations to the houris I saw a wool-fat and cucumber soap, which is daintily put up in quaint beetle-green moiré-silk paper with gold-block lettering. The soap is sent out three in a box, and—well, the perverse muse insists on Kiplingising at this particular point:—



In the Walk yeleft "St. James's," looking northward from the Green,

There the Burmese perfumes flourish, blushing brightly all a row;

Soaps of wool-fat and cucumber (Bristow's latest)—beetle sheen—

Rival Gangow's gorgeous splendour, chide Pan-Natha and Kadow:

In the show-case there they lay, Bound for Mull or Mandalay;

And got up to captivate 'em, where-so'er they choose to go.

Mr. H. N. Bolton told me that he prints the name and address of the customer on the box as well as on each wrapper. The firm have also introduced an Eau-de-Cologne soap. Other soap specialities

which I saw were a baby soap to retail at 4/6, a 2/1 carpet soap, and a series of "Butter-milk" and "Glycerine and Cucumber" in wrapped and unwrapped varieties. Soap prices are in a rather unsettled state at present, owing mainly to the rise in tallow. At a recent meeting of soap-manufacturers a general advance was foreshadowed.

SHOPFITTING WHILE YOU WAIT.

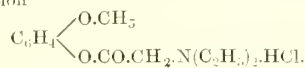
I am always struck on my visits to Mr. Phillip Josephs & Son, of 54 Old Street, E.C., with the cheerful optimism which prevails there. Empires may seem in danger, and commercialism be sunk into a state of gloom, but Mr. Josephs invariably comes up smiling with the assertion that he has seen things much worse before. So it happened when I looked in on them a few days ago. My inquiry as to business was followed by the prompt production of a list of a dozen or more pharmacies recently fitted up by the firm in localities as widely apart as Fishguard in South Wales and Condobolin in New South Wales. I was then conducted over new premises with largely extended accommodation, where numerous showcases were on view ready for the Paris Exhibition. One of these cases had patent catches fitted on to the iron supports for the glass shelves inside the case. These permit the shelves to be lowered with ease. Here were also innumerable stacks of counters, glass cases, dispensing-screens, wall-fittings, and other pharmacy furniture, all ready to be packed off at a moment's notice. Chemists who have grocery as a combination are also catered for, and I noticed a particularly handsome wall-fitting in mahogany with the proper tin tea and coffee canisters bearing Chinese or Japanese symbols. Perhaps the most striking indication of the extent of Messrs. Josephs' business is the workshop, round which I was piloted by Mr. Josephs, jun. There one sees shop-fittings in all stages of construction, from the huge slabs of mahogany to the finished furniture. A friend of mine in the South American wood trade tells me that mahogany is getting scarce, but there is no scarcity in Old Street.

Atomic Weight of Nitrogen.—The mean value derived from the researches of Stas, Penny, Marignac, Pelouze, and Hibbs by exclusively chemical methods is 14.034 (oxygen = 16), whilst the value calculated from the practically identical densities of Lord Rayleigh and Ledue is 14.006. Recent work by Mr. G. Dean with silver cyanide of great purity, and using the ratio of Ag:AgCN, has given the value 14.031, a number practically identical with the above-quoted 14.034. (*Nature*, February 8.)

Scientific Progress.

Epicarin.—This is a new dermatological remedy which Kaposi has prepared. It is a condensation-product of β -naphthol and cresotic acid, and is claimed to have a marked and rapid action in certain skin-diseases, such as psoriasis, eczema, and scabies. He calls the substance "epicarin." It is a reddish-yellow powder, soluble in alcohol, ether, and vaseline, and is recommended to be used as an ointment (10 to 20 per cent.) or in 10-per-cent. solution.—*Pharm. Post* (1900, 83).

Guaianacol.—This is the latest synthetic from the Höchst factory. It is an internal antiseptic, and is recommended for tuberculosis. It forms white crystals, melting at 184° C., has a faint guaiacol odour and a bitter-saline taste. It is very soluble in water, and in the organism splits up into its components. Chemically it is the hydrochloride of diethyl-glycocol-guaicol, of the constitution



New Antipyrin Compounds.—Bougault, who has for some time past been investigating the iodine compounds of antipyrin, now publishes (*Journal de Pharmacie*, 1899, 165) an interesting paper on the compounds of iodo-antipyrin with mercury salts. With mercuric chloride a beautifully crystalline compound is formed, melting with decomposition at 168° to 169° C. This body has the composition $\text{C}_{11}\text{H}_{11}\text{IN}_2\text{O} \cdot \text{HgCl}_2$. Curiously enough, the mercuric-iodide compound contains two molecules of iodo-antipyrin and one of mercuric iodide, its formula being $(\text{C}_{11}\text{H}_{11}\text{IN}_2\text{O})_2 \cdot \text{HgI}_2$. A very complex but well-defined compound was prepared with the chloride and iodide together, also containing hydrochloric acid. This body has the formula $(\text{C}_{11}\text{H}_{11}\text{IN}_2\text{O})_2 \cdot \text{HgCl}_2 \cdot \text{HgI}_2 \cdot 2\text{HCl}$. It forms crystals which are nearly white, with a faint-yellowish tinge, melting at 140°. The last compound described is that with mercuric iodide and hydrochloric acid, $(\text{C}_{11}\text{H}_{11}\text{IN}_2\text{O})_2 \cdot \text{HgI}_2 \cdot \text{HCl}$. This body forms fine yellow crystals, melting at 130°.

Iodine and Antipyrin.—Bougault some time ago suggested the estimation of the amount of iodine absorbed as the basis for the quantitative determination of this body, and now (*Journal de Pharmacie*, 1900, 97) points out that it is applicable to the antipyrin compounds hypnal (chloral hydrate and antipyrin) and salipyrin (salicylic acid and antipyrin). One gramme of hypnal corresponds to an absorption of 0.7185 gramme of iodine, and 1 gramme of salipyrin to 0.7791 of iodine. By using a very concentrated solution of antipyrin, crystals of iodoantipyrin, of the formula $\text{C}_{11}\text{H}_{11}\text{IN}_2\text{O}$, were obtained. [It may be pointed out that this method is quite useless unless no other body capable of absorbing iodine is present, so that its applicability is extremely limited.—Ed.]

Essential Oil of Geranium.—An interesting paper on this subject by Jeancard and Satie, appear in the *Bull. Soc. Chem.*, 1900, 37. The following table gives results of the examination of six samples of known authenticity:—

Source	Sp. Gr.	Sp. Rot.	Esters ($\text{C}_{13}\text{H}_{20}\text{O}_2$)	Free Alcohols ($\text{C}_{10}\text{H}_{18}\text{O}$)
			Per cent.	
Cannes ...	0.8972	−9° 40'	9.8	61.31
Spain ...	0.9073	−7° 30'	7.84	66.23
Corsica ...	0.9012	−8° 0'	7.00	68.55
Africa ...	0.9006	−8° 6'	8.08	63.19
Bourbon ...	0.8905	−8° 20'	6.65	71.28
India ...	0.8960	−0° 48'	11.30	84.62

The Chemistry of Digitalis.—In a paper on the chemistry of digitalin and the allied bodies, Kiliani, who is well known as one of the most enthusiastic workers on this subject (*Arch. d. Pharm.*, 1899, 455), shows that the older formula, $\text{C}_{16}\text{H}_{22}\text{O}_{13}$, for digitaligenin is incorrect, but elementary analysis does not enable one to differentiate between the formulae $\text{C}_{25}\text{H}_{32}\text{O}_5$ and $\text{C}_{25}\text{H}_{30}\text{O}_5$. If digitaligenin is oxidised with chromic acid, a body similar to toxigenone is produced. Its identity with this body, although not proved, is very probable. Either of the formulae $\text{C}_{25}\text{H}_{36}\text{O}_{11}$ and $\text{C}_{26}\text{H}_{38}\text{O}_{11}$ appears to be probable for digitalin itself. The hydrolysis of digitoxin, by which digitoxigenin and digitoxose are produced, is well known, but an examination of the oxime and carboxylic acid of the sugar proves that the formula of digitoxose is $\text{C}_6\text{H}_{12}\text{O}_4$. This sugar is certainly an open-chain compound. Digitoxigenin has the formula $\text{C}_{34}\text{H}_{54}\text{O}_{11}$.

The British Pharmacopœia.

Indian and Colonial Addendum.

WE are indebted to Dr. John Attfield, F.R.S., Editor of the Indian and Colonial Addendum to the British Pharmacopœia, 1898, for proofs of a report which he has prepared for circulation to the Pharmacopœia Committee of the General Medical Council on the India section of the Addendum. The report is a pamphlet of sixteen pages, the first five of which are prefatory remarks by the editor, in the course of which he gives a chronological statement of the assistance in this matter rendered by the Indian Government, its Medical Departments, and certain officers and individuals connected therewith. The rest of the pamphlet is taken up by a provisional report by the members of the Indian Drugs Committee (Madras). The editor acknowledges the assistance rendered by this committee, and it is not difficult to gather from his remarks that similar thorough reports from the other sixty or seventy Imperial Dependencies would gratify him. For the Madras report Professor and Major Crawford, M.D. (*materia medica*), Mr. R. Hollingsworth (*botany*), and Lieut.-Colonel St. Clare Caruthers (*pharmacy*) are responsible. References are given through editorial notes in their report to other authorities, and we are given to understand that what applies to Madras should also apply to Ceylon; also that an Indian section of the B.P. Addendum may be expected within the next few months. The paragraphs which follow are the briefest possible abstracts of the Madras paragraphs, which we give chiefly for the benefit of our Ceylon and Indian subscribers, and any who desire to supplement the information given should address Dr. John Attfield, F.R.S., 299 Oxford Street, W., London, England:—

ACACIE ARABICÆ CORTEX may be omitted.

ACALYPHA.—Preparations recommended: juice of the fresh plant on B.P. succus lineæ, dose 5j. to 5iv.; and liquid extract of dry plant, 1 in 1, by percolation with spirituous menstruum, dose m. to mxxx.

ANDROGRAPHIS.—Preparations recommended: tincture 1 in 10 with 60-per-cent. alcohol, dose 5ss. to 5j.; liquor concentratus 1 in 2, dose 5ss. to 5j.; and infusion 1 in 20 boiling water quarter-hour, dose 5ss. to 5j. From dried plant.

ARISTOLOCHIA.—Infusion not recommended, but liquor concentratus as last and tincture 1 in 5 with 70-per-cent. alcohol. From root and stem.

BERBERIS.—Of the root-bark tincture (12 oz. to 2 pints), dose 5ss. to 5ij. (tonic) and 5ij. to 5vj. (antiperiodic); and infusion 1 in 20 boiling water one hour; recommend dose 5ss. to 5ij.

BETEL-LEAVES might be officially recognised as an external warm application.

BUTEA GUMMI might be an official equivalent of Kino, where more easily obtainable than official Kino.

BUTEA SEMINA cannot take the place of *santonin*, but the drug should find a place in the Addendum as an anthelmintic. Dose of dried and powdered kernels 20 gr. three times a day for three successive days. Infusion not recommended.

CISSAMPELOS.—Recommend decoction of sliced root 1½ in 20. Dose, 3j. to 5ij.

COSCIUM.—Root a valuable equivalent of *calumba*. Tincture 1 in 10, maceration, dose 5ss. to 5j.; liquor concentratus 1 in 2 (like liq. *calumb. conc.* with 9 alcohol in 20), dose 5ss. to 5j.

CRINUM.—The committee recommend *Scilla indica* and *Urginea indica*, and not *Crinum asiaticum*, as a substitute for the official squill, the preparations being named *acetum urginæ*, *tinctura urginæ*, &c.

DATURA.—Seed-tincture 1 in 8 recommended. Dose, m. to mxxx.

EMBELIA.—Both *E. ribes* and *E. robusta* recommended in powder, dose 3j. to 5ss. for tapeworm; liquid extract preparing.

EXACUM.—The committee have procured a supply of *Succaria affinis* (Clarke), which is practically indistinguishable from the official *chiretta*. [To provide for the suggested interchangeability has been found to be difficult. Moreover, the Pharmacopœia Committee has been advised on good authority that simple bitters, indigenous to India, are sufficiently represented by the official *chiretta* and the *andrographis* of the draft Addendum. Will the Madras reporters please further advise?—Ed. I. & C.A.]

GOSSEYI RADICIS CORTEX.—Fresh active plant not available in time for this report.

JASMINUM.—The fresh flowers are undoubtedly lactifuge. Will report further.

KALADANA (*Ipomœa hederacea*).—To take the place of *jalap* in B.P. preparations.

MUDAR.—The official name should be "*calotropis*." Dose of powdered root-bark as a tonic, 3 to 10 gr.; as emetic, 30 to 60 gr. A tincture investigated by the committee was found to possess same properties. Strength, 1 in 10. Dose, 5ss. to 5j.

MYLABRIS.—The *Mylabris Cichorii* (not *M. phalerata*) to take the place of *cantharides*, and to be used for similar preparations.

MYROBALANUM.—Two ointments, as in the Indian Pharmacopœia, one with opium, the other without, hinted at. [In India and Ceylon this drug appears to possess close pharmacological resemblance to *rhubarb*, and to be both as useful and as indefinite in regard to active principle.—Ed. I. & C.A.]

OLEUM AJOWAN.—The committee and all authorities in India and Ceylon appear to be agreed regarding the usefulness of this oil.—Ed. I. & C.A.

OLEUM GRAMINIS CITRATI.—May be officially recognised for its own merits.

SAMADERA.—Probably not sufficiently readily attainable to warrant official recognition.

SAPPAN has been used in Government depôts instead of logwood. A decoction suggested.

THUS INDICUM.—The committee have no special knowledge of this substance.

TINOSPORA.—A very old-established drug, resembling *calumba*. Similar preparations suggested, with a "might be."

TODDALIA.—Aromatic tonic comparable to *cusparia*. Tincture and liquor concentratus similar to *cusparia* suggested.

TYLOPHORA is an equivalent of *ipecacuanha*. Results of experiments with liquid preparation are to be sent.

VALERIANA INDICA.—To take the place of *V. officinalis* of the B.P., with an ammoniated tincture 1 in 5.

The following paragraphs refer to articles which were not given in the draft Addendum:—

AZADIRACHTA INDICA is of considerable repute among the natives of South India, who utilise every part of the tree for medicinal purposes. As being of greatest value it is the bark of the wood we recommend to be official. It is a bitter tonic, and has excellent properties similar to those of *quassia*. Natives indeed make *Neem* cups, like we—(*sic*)—make *quassia* cups, in which they pour water for producing a stomachic drink. We shall experiment as before with a liquor concentratus. The tincture and the infusion should be official, of the same strength and mode of preparation as *quassia*.

ALSTONIA SCHOLARIS.—A well-known astringent tonic of much value. A tincture and infusion should be official: tincture 2½ oz. to the pint, and infusion ½ oz. to 10 fl. oz.; drachm and ounce doses respectively. Same remark applies with regard to the liquor concentratus as before.

GYNOCARDIA ODORATA.—The seeds of this yield *Chaulmoogra* oil of very well-known value in leprosy. It is administered both internally and externally. The evidence regarding its utility is considerable. Most medical men who are engaged in treating lepers place considerable trust in this oil. It is alterative also in other chronic skin-diseases and in tubercular eruptions. The ointment might be official (Indian Pharmacopœia), its composition being, the oil 1 part, hard paraffin 4 parts, soft paraffin 5 parts. The oil itself might be made official, not the seeds. "*Oleum Gynocardie*." The oil is given in doses of 4 minims, increased gradually from ½ to 1 fl. dr.

The committee also describe the gum of *Anogeissus latifolia* (Wall) as apparently suitable for *acaciæ gummi*. This is *Ghatti* gum, the kind suggested in the draft Addendum as most suitable.

ADEPS LANÆ in connection with kaolin, &c., is of considerable use in the preparation of pills which are intended to contain phosphorus, potassium iodide, potassium acetate, and deliquescent salts in general. The latter may be dissolved in a minimum quantity of water, white bole or kaolin added to take up the liquid, and the whole massed with the *adeps lanæ*.—Mr. A. I. Cohn, in *Merck's Report*.

THE DRUG-LIST.—The war correspondent in South Africa of the *Lancet* says:—

My attention has been called by Colonel Anthonisz, Principal Medical Officer, 1st General Hospital, to the fact that several of the new drugs are not in the scheduled list. They are not included either in the Indian list; but out there a rather happy custom prevails to overcome the omission which might with advantage be copied by the authorities at home. Every medical officer in charge in India gets an extra allowance of 5*rs.* a year to procure any new remedy that he requires. No doubt the authorities here would instantly supply what is needed; but a certain routine has to be gone through, and much valuable time is often wasted in procuring what ought to be ready at hand to meet a pressing necessity.

Festivities.

PAISLEY CHEMISTS SUP AND DANCE.

A very successful gathering of the chemists in Paisley took place at the Art Gallery in that town on February 13, over 120 persons being present. The Chairman was Mr. W. B. Halley, Glasgow, and he was supported by three local doctors, many retail chemists, and various representatives of the wholesale trade. An excellent supper was followed by various toasts, amongst them "The Chemists and Druggists of Paisley," proposed by Mr. J. Cairncross and replied for by Mr. H. Stewart. The company then "tripped the light fantastic," and listened at intervals to songs admirably rendered by Mrs. Kennedy and Messrs. Dykes, Thomson & A. Reid, until three o'clock in the morning. The meeting was a most enjoyable one, and reflected great credit on the organising abilities of the committee and Mr. H. Hannah who acted as M.C.

PLEASURE AND PRINCIPLE AT BLACKBURN.

The annual dinner of the North-East Lancashire Chemists Association was held at Blackburn on Thursday evening February 15, Mr. Conneillor Critchley in the chair. Amongst those present were Drs. Symes, Cunliffe, Crinnan, and Pollard, and Messrs. J. Rymer Young, E. Evans, jun., J.P., G. T. W. Newsholme, Heaton (Burnley), and Councillor Shorroek (Darwen). Apologies from Alderman Gibson (Manchester), Dr. Brooke, Dr. Rigby, and Mr. Booth were intimated. In spite of a blizzard 50 diners sat down.

Mr. Rymer Young proposed the toast of

THE N.E.L.C.A.,

and, in referring to the presence of Mr. Newsholme, said he was the first mate of a good old-fashioned ship, which, though it was not equipped with all modern appliances, would weather the storms through which it would have to pass. The Association under whose auspices they had met that night had been in existence seven years, and during that time had contrived to make things hum. When he thought of the appalling apathy which pervaded pharmacy, it was refreshing to find an association of men holding emphatic views and the moral courage and ability to express them. Of course there was a danger that their enthusiasm might sometimes outstrip discretion, but he would rather



MR. J. R. YOUNG.

have emphatic, direct, and straightforward opposition than apathy and indifference, which was the besetting sin of the pharmaceutical fraternity. He preferred a democratic Tory to a half-baked, snivelling Liberal who did not know his own mind. (Cheers.) He did not think that the Council of the Pharmaceutical Society had always received that consideration which it deserved. It could not be regarded as a body of delegates. Yet the members of the Society had the right to expect that every member of the Council would be alive to the interests of the trade, and would do his utmost to see that the Act of 1868 was carried into effect. The individual members of the Council were sincere in their views, but could not get quite their own way on the Pharmaceutical Council. When Mr. Walter Hills—the most straightforward and conscientious man who ever graced the Council—was in the chair they had views expressed which were different from those of Michael Carteighe, the hero of a thousand battles, and Mr. Glyn-Jones had distinct and original views which did not quite agree with those of the majority. So the Council had a difficult task in hand. When they found one trade journal regarding a board of qualified directors as the means of salvation, another insisting that the remedy was to be sought for in a qualified managership, and a third pinning its faith upon pharmaceutical unity, it was easy to see that the Council were in a difficult position. If he were to tell them that every

member of the Council was desirous of ameliorating the conditions under which they were, it would only be the truth. The members of the Council were united on the point, but not upon the best method to adopt in order to secure it. He concluded by toasting the Association, and saying there was no reason why it should not send a member to the Pharmaceutical Council. (Hear, hear.)

Council Shorroek, in responding, said the impending legislation, in his opinion, was not calculated to secure all that they desired. He had every confidence in the Pharmaceutical Society, and hoped every association in Great Britain would help to formulate a measure which would really put them in a better footing.

Mr. Edward Evans, Jun., gave the toast of

PHARMACY.

From its commercial aspect pharmacy, he said, was not altogether an inviting occupation to follow. Whilst they could read of millionaires in almost every trade in the country, they never heard of a millionaire druggist, but he was not quite sure that amassing great fortunes was everything in this life. (Hear, hear.) Undoubtedly pharmacy was going through critical times just now, but he was optimistic enough to believe that it would come through all right. He was not convinced that to bring such matters too much before Parliament would be to the benefit of the trade, for publicity sometimes led to misunderstanding, which might be detrimental to their interests in the end. Of one thing he was certain, and that was that their efforts must not be on the assumption that chemists were only desirous of getting such legislation as would compel their customers to pay more than they had hitherto done. The chemist was entitled to a certain amount of protection, owing to his professional status, and if he obtained this, and was a business man and qualified, he need fear no competition in his efforts to make a respectable living.



MR. EDWARD EVANS, JUN.

Mr. Heaton, in reply, said professional pharmacy had been killed by apathy. Chemists had several difficult things to contend with. There was the pernicious impending legislation, there were the thousand and one little stores which were springing up, and which were unhampered by the restrictions which surrounded the chemist, and there was the great cost of examinations, which rendered it extremely difficult for the chemist to get qualified assistants. In this last connection he recommended that the examinations ought to be held in different centres, and at various times. The trade of the chemist was the worst paid, had the longest hours, and was the most restricted of any in the country.

Mr. R. L. Gifford submitted

THE PHARMACEUTICAL SOCIETY.

He said his committee, in honouring him with that toast, placed upon him the responsibility of expressing its feelings towards the Society. At a time when their affairs were at such a critical stage, when they were near the death or the salvation of their legally-acquired rights, the committee would not tolerate anything but a serious and reasonable treatment of this subject. The policy of a society must depend upon the dominating influence, and in their case that was the old paternal influence which all along had taken their money and allowed them to run wild, and there would not and could not be any improvement until the great body by sheer insistence altered the character of the ruling influence. The Pharmaceutical Society, which on paper was so perfectly democratic, was in practice intolerably oligarchic—(laughter and cheers)—ruled and regulated by obsolete methods and impossible people, altogether out of touch with the constituency, and ignorant of the spirit of the

times. The Pharmacy Act of 1868 was not acceptable to the Pharmaceutical Society, which regarded it as a wretched Poisons Bill, and was imbued with aspirations of high pharmacy, which it had been pursuing ever since. That tradition had been the curse of pharmacy, and the Pharmaceutical Council was unable to see that Governments look beyond the needs of sections to the requirements of the whole people; and even now the official journal was used to bolster up that fallacy, and had used every discreditable means to push the "pre-'68" policy and suppress the real opinion of practically every chemist on the register. The Pharmacy Act of 1868 established the principle of qualification, and also that it is proper, when the interests of the public demands, to put outside the operations of free trade the sale of poisons or powerful substances, and to confine their distribution to properly qualified persons. This enthrallment of the dominating influence on the Council to a pharmaceutical "will-o'-the-wisp" had made the members neglect the principle of the 1868 Act, with the result that the edifice was now falling about their ears. Had it been otherwise, the association of the chemist with responsibility would have induced by natural evolution a real practice of pharmacy as a part of the medical profession, and what was needed was that qualification must be (1) recognisable, and (2) not negotiable, without which natural development could not take place. On the question of the organisation of the drug-trade his Association asked why their stagnant Society did not make effective Mr. Newsholme's scheme for increasing the membership and power of the Society which it professed to approve? If the Society lifted its finger it could bring within its fold at once the great majority of registered chemists at present outside, and it had only itself to thank if it was stated that the dominating traditional element did not want them, but only just "guineas enough *plus* the examination-fees." The administration of the Pharmacy Acts by the Council had been inept, ineffective, and incompetent, and it still was so. Lastly, his committee protested that it was nothing less than shameful that their own journal should distort, manipulate, manufacture, and misrepresent opinions in the way it did. An official organ should reflect accurately the views of the members, but it could not with propriety do the questionable things which private enterprise might do. Its primary duty was to insist that the views of any considerable section of members were stated with clearness. He proposed "The Pharmaceutical Society in harmony with its constitution." (Applause.)

Mr. Newsholme, in response, commended Mr. Gifford for his outspokenness. With regard to his criticisms, he said



MR. G. T. W. NEWSHOLME.

the Pharmaceutical Council was what the chemists of the country made it. (No, no.) Members could vote for whom they liked, and if the North-East Lancs Chemists' Association were not satisfied with the Council it was a very simple thing for them to alter it. Dealing with the Companies Bill, he said, regarding Clause 2, that it was a monstrous thing that the qualification for which they had worked was to be bartered away at the will of a limited company. If such a right could be claimed by a limited company, it was equally just that any individual should be allowed to do likewise.

The Council were not united on the point, but his own opinion was that it was their duty to oppose the Bill unless chemists were put under the same clause as medical men, dentists, and midwives. He admitted that chemists were traders, but claimed them to be professional men from the fact that every qualified chemist was, or ought to be, responsible for every article that went out of his shop. They did not require another Pharmacy Act. Bogus companies could not go on if qualified chemists did not sell their services to them. It was very unfortunate that that sort of thing had grown so. He thought they should not only oppose Clause 2 as he suggested,

but endeavour to get a clause inserted which would make it a penal offence for a qualified man to cover a company or non-professional man.

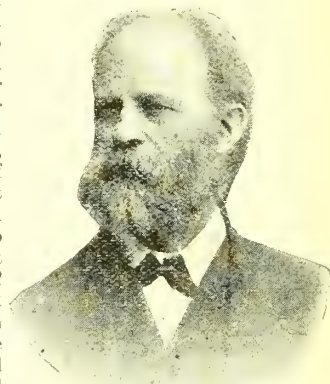
Dr. Symes also replied. He remarked that they were told that the Pharmaceutical Council did not attempt what it ought to do. He did feel that taunt a little. Eight or nine years ago he brought forward a resolution, and not for the first time, in favour of placing carbolic acid on the poisons schedule, and every member of the Council on that occasion worked with him. It was sent up to the Privy Council, but what became of it? They knew very well that a similar resolution had been passed by the Pharmaceutical Council some months ago, and that the Privy Council had told them that the matter was under consideration. Did they think, in the face of things like that, that it was fair to lay at the door of the Council the charge that they were not endeavouring to do the best they could? If anyone asked him what was at the bottom of their troubles, he should say two conditions. There was at the present day a sort of madness on the part of the public to get things cheap, and this was felt keenly by pharmacists whose turnover was small. They also suffered from the medical profession dispensing their own medicines, and from the "cutter," who had no regard for his fellow in the calling. There was also the great evil of a qualified man who had no soul above what he could get, and was quite willing to sell his services and become a hiring to an unqualified employer. It was the accumulation of such things that acted prejudicially towards them. If they asked him for the remedy, he should say he was there that night to learn it. (Hear, hear.) If they succeeded in preventing limited companies carrying on their business, they would not be free from difficulties.

Other toasts included "The Medical Profession," "Federation of Local Associations," "Visitors," and "The President," which were interspersed with songs. In responding for "The Medical Profession," Dr. Cunliffe thought it was particularly requisite at the present time that the opinions of all should be known irrespective of their position in either medicine or pharmacy, and considered it advisable that the work of educating people up to the present situation should be vigorously proceeded with. A very significant effect of this policy was well illustrated in their own local Medical Society, which had recently, after a full discussion, passed unanimously a resolution of sympathy with qualified chemists, and pledged themselves to actively support them in the protection of their titles and practice.

SQUARE STUDENTS DINE.

The annual dinner of the School of Pharmacy of the Pharmaceutical Society of Great Britain took place at the Holborn Restaurant, London, W.C., on February 21. Professor Norman Collie was Chairman, and was supported on his right by Mr. W. Martindale and Professor Greenish, and on his left by Mr. Carteighe and Dr. A. P. Luff. After dinner, the toast of "The Queen" having been honoured, Mr. H. Deane proposed the toast of "The Pharmaceutical Society," and said that the Society was the only means by which the status of pharmacy could be improved. The Council always took great interest in the school, and had recently granted the students permission to use the examination-hall for a drill-class. (Applause.)

Mr. W. Martindale, replying, said the Society was founded by pharmacists and had been kept up by pharmacists, and had not, he believed, touched a penny of money except that of pharmacists. He hoped the students would cultivate *esprit de corps*, and, by associating with each other, keep above meannesses which they saw sometimes around them.



DR. CHARLES SYMES.

Mr. Carteighe proposed the toast of "The School of Pharmacy," and said he presumed it was in his capacity as Visitor to the school that he was asked to give the toast. He always considered that the greatest benefit the founders of the Society bestowed was by establishing the educational system and School of Pharmacy. It was the fact that the Society were doing good educational work that weighed with the Legislature when the Acts of 1852 and 1838 were sought, and the one fact that gave them a certain respect in the House. Mr. Carteighe then referred to the fact that Sir Michael Foster, the new member for the University of London, is an honorary member of the Pharmaceutical Society, and owed his wide grasp of every kind of learning by association with men in his professorial and secretarial capacities. He hoped the President would be able soon to announce that arrangements would be available by which students of the school would be able to obtain a degree in the London University, and not only to obtain a degree, but by an equitable arrangement be absolved from certain parts of the course of study by reason of the curriculum they had gone through at the school. It was a thing they had been fighting for for a long time, and he hoped that every one of the students would in the future be able to be associated with the great University of London. (Applause.)

Professor Norman Collie replied, and said that so far his connection with the school had been of the pleasantest. The longer curriculum gave students a better chance of getting education, and the professors were able to deal more fully with their subjects. Alluding to the football team, he said they had only suffered one defeat, and he fully expected to see the Pharmacy Cup in the possession of the club this year. (Applause.) The drill corps was an excellent thing if only for the healthy perspiration the drill induced. (Laughter.)

Mr. Willcocks, in an excellently-delivered speech, proposed "The Past Students," to which

Dr. Luff replied, and said it was twenty-six years since he won the Bell Scholarship, being at the time a youth of 17. After referring in high terms to his experience of Mr. Carteighe and Mr. Walter Hills, Dr. Luff said he should never forget the kindness he had experienced from Mr. Martindale, who examined him in recognition of drugs at the scholarship examination. From Dr. Attfield also he learnt the object-lesson of manliness and thoroughness. (Applause.)

An unarranged item was provided by Dr. Attfield, who, after all speeches were exhausted, rose and stated that he had been asked to propose "The health of Dr. Norman Collie." This was an exceedingly great pleasure to him, he remarked, and he wished to observe that he had been associated with, as it were, three successive generations of professors at the "Square." In the first place as a student, in the second as a colleague, and, finally, as an antecedent to Dr. Collie. It was a remarkably curious coincidence and a matter of great enjoyment to him, he said, that February 21 was the very day fifty years ago on which the Registrar of those times—Mr. Smith, who preceded Elias Bremridge—handed him his certificate of registration as an assistant. It was, therefore, a great pleasure to him to be present at this reunion on the occasion of his anniversary. Dr. Collie replied with appropriate thanks.

The intervals between the toasts were pleasantly filled by singing and recitations by past and present students.

Colonial and Foreign News.

A PETITION signed by 1,100 apothecaries and assistants has been presented to the Reichstag asking that the recently-adopted shop-closing hour of 9 P.M. be extended to pharmacies.

THE SANITARY COUNCIL OF SOFIA proposes to edit a national Bulgarian Pharmacopœia; the amount necessary will shortly be asked from the Sobranje. The Russian Pharmacopœia now in force does not satisfy them.

RICH CINNABAR-MINE.—The recent impetus given to mining-interests in California by the advanced price of quicksilver has caused parties to examine an abandoned mine at Booneville, with the result that after some little

prospecting a vein of rich cinnabar-bearing ore was opened up.

FOREIGN MEDICAL MEN IN RIO.—The Brazilian President has announced by decree that foreign medical doctors who have been professors in foreign universities or schools, or who are authors of important works on medicine, surgery, or pharmacy, may have licence to practise medicine on application to certain specified authorities in Rio de Janeiro.

SWISS CUSTOMS DECISIONS.—The following decisions regarding tariff-rates of duty have been arrived at by the Swiss Customs department from June to December last:—Phenacetin, 8f. per 100 kilos. (3s. 3d. per cwt.); tannoforn, 10f. per 100 kilos. (4s. 0 $\frac{3}{4}$ d. per cwt.). Liquid carbonic acid, compound, in portable reservoirs, is liable to duty on the basis of the net weight increased by 50 per cent.

TAXING ELECTRICITY.—There is some excitement at present owing to the proposal to generate electricity on the Canadian side of Niagara, and sell electric power on the American side. Those who believe in free trade in electricity point out that it is not an article that has power to work, but only serves as a means of transmitting power, and that it is utterly impossible to import it because it instantly returns to its source.

A BRAZILIAN SERUM-FACTORY.—The Rio factory of Yersin serum is said to be approaching completion, but a serious difficulty has arisen in regard to the horses. The mounted police have none to spare, and the doctors have found nothing but three worn-out, good-for-nothing "shacks" from which to brew serum. The danger is (says the *Rio News*) that we may get worse diseases from such serum than the bubonic pest.

SALT-IMPORTS CONTRABAND IN CHINA.—For some time past mixtures of borax and salt and saltpetre and salt have been imported into China from Europe for the purpose of preserving eggs, and also albumen, which are largely exported from that Empire; but owing to the fact that salt is contraband as an importation, the production and sale of it being a Government monopoly, the Customs officials have recently prohibited the importation of the above mixtures.

ETHER-DRINKING IN EASTERN PRUSSIA.—This habit has spread alarmingly in Eastern Prussia, where ether is sold in the saloons like any liquor, 4 or 5 grammes to the glass. In the town of Memel alone, it is stated, the amount thus sold in 1899 was about 8,500 quarts, and in reality twice this amount was consumed, the rest being brought in by smugglers. The effect is said to be four times more powerful than that of an equal amount of alcohol.

ORTHOFORM INFRINGEMENT.—In Berlin on February 13, an apotheker proprietor, named Schliewa, and his former assistant, Apotheker Cieslewitz, were charged by the Hoechst Colour-works with an infringement of their trade-mark "Orthoform." A mixture of orthoform and vaseline was kept in stock by the apotheker, and was sold twice last year by medical prescription. If the remedy was sold over the counter it had a wrapper marked "Orthoform Vaseline" round it. The accused, in defence, pleaded that an apotheker had to keep all new medicaments in stock, and that if a doctor ordered orthoform it would be absurd for a chemist to sell it under another name, and it was certainly wrong that a name which did not refer to goods, but to a medicament, should be protected. The defendants were acquitted.

THE SALE OF SACCHARIN.—The German Union of Sugar Manufacturers has presented a petition to the Reichstag and the Federal Council that saccharin be placed under pharmacy control, as in most other countries. Its use for medical purposes would not be interfered with, and the sugar industry would be relieved of a very damaging opponent. The production of saccharine in 1897-98 was 78,353 kilos., and in the following year 132,287 kilos., these representing a loss of about 40,000,000 kilos. of sugar or 300,000,000 kilos. of beetroot. This amount of sugar would also have paid 8,000,000m. taxes, so it is hoped the Exchequer will be on their side as well as the agriculturists. The present law, which has not yet been two years in force, states that saccharin may not be used in manufactured foods, &c., except for home use, and the privilege granted by the latter clause has been much abused

Winter Session.

Notices of meetings to be held are inserted under "Coming Events." If meetings are not attended by reporters, secretaries of associations would oblige by communicating with the Editor.

Chemical Society.

THE meeting at Burlington House on Thursday evening, February 15, was poorly attended, although it was a ballot-night, the small attendance doubtless being due to the bad weather. Professor T. E. Thorpe, F.R.S., occupied the chair, and opened the proceedings about ten minutes past 8. After the opening proceedings, the PRESIDENT intimated the

CHANGES AMONGST OFFICE-BEARERS.

Professors Ramsay and Emerson Reynolds are retiring from the Vice-Presidency, and Messrs. Bevan, Morley, Moody, and Smithells from the Council. In their places were nominated Professor Divers and Dr. Thomas Stevenson as Vice-Presidents, and for the Council Mr. Augustus Dixon, Professor Collicie, Mr. W. J. Pope, and Dr. Chattaway. The other office-bearers continue in office for another year, including Professor Thorpe as President. Messrs. Crossley, Fulcher, and Page were appointed auditors of the Society's accounts, and Messrs. Bloxam and Robbins were appointed scrutators of the ballot for the Fellowship.

PROFESSOR DIVERS

was next called upon to contribute a series of papers. The first two were on ammonium amidosulphite and on the products obtained by heating ammonia sulphites, thiosulphate, and trithionate. In these communications he was assisted by Mr. Masataka Ogawa, of Tokio. The first recorded experiments on the reaction between sulphur dioxide and ammonia gas. The authors found that, when these gases are sufficiently dry, they do not unite when they are brought together, no condensation of gases taking place. When dry ether is saturated with ammonia gas, and sulphur dioxide is passed through it, reaction takes place, and a white, indistinctly crystalline, efflorescent substance separates, which dissolves in water and alcohol. This is an ammonium sulphite having the formula $\text{NH}_2\text{NH}_2\text{SO}_3$. It is an amido compound, not imido, as it is readily converted into sulphite, but with the slightest elevation of temperature the compound decomposes, therefore it is difficult to analyse it. It appears that Rose stated long ago that ammonia gas and sulphur dioxide combine in equal volumes, but this investigation clearly shows that that is an erroneous statement. Rose appears to have obtained the product of the decomposition of the substance formed from 2 volumes of ammonia and 1 of sulphur dioxide. In the second paper it was shown that pyrosulphite is formed as a result of heating the compounds mentioned.

The third paper communicated by Professor Divers was on the colour of alkali nitrites, and the fourth on the solubility of potassium nitrite and nitrate. Sometime ago he stated that sodium and potassium nitrites are yellow, and Mr. C. E. Groves disputed the accuracy of this. Professor Divers now stated that he had made these nitrites by various methods, including preparation from pure silver nitrite, and he invariably obtained yellow salts, the potassium nitrite being darker than the sodium salt. Their watery solutions are also coloured. He thought that it would be as futile to extract the colour from these substances as it would be to remove the pink colour from manganous salts. The point of interest in respect to the potassium-nitrite note was Professor Divers's statement that commercial potassium nitrite is a mixture of 3 parts of the nitrite and 1 part of nitrate.

MESSRS. GROVES, BAKER, BLOXAM, and SCOTT briefly discussed the papers, the most important remark being Mr. Bloxam's reference to ammonium sulphite being so unstable that, when it is kept in an airtight bottle, the stopper opened, and the contents touched with a stick, the whole mass and the bottle become red hot. Professor DIVERS, in reference to this, stated that the sulphite keeps perfectly in an atmosphere of ammonia gas.

MR. ELWARD J. RUSSELL

next submitted three communications which proved to be of absorbing interest. The first was on the combination of sulphur dioxide and oxygen. In this work he was assisted at Owens College by Mr. Norman Smith, and the point of their research was to determine the influence of various oxides in promoting the combination of sulphur dioxide and oxygen. For example, they took manganese dioxide and made it into pellets, passing the mixed gases over the pellets. They found that the dioxide promoted the combination of the gases, especially when the pellets were kept dry, while the size of the pellets also had a promoting influence. Contact action, or, as it used to be called, the catalytic action, was thus proved. Mr. Russell concluded this paper by mentioning in the coolest way possible that he and Mr. Smith had endeavoured to combine dry sulphur dioxide and oxygen by a mixture of the gases, but they found that they would not combine when water was completely absent. He described the apparatus employed, and mentioned that the drying process occupied one month of continuous work day and night, and that the first result was checked by two further experiments each lasting a month.

In the second note Mr. Russell described on his own behalf the estimation of gases containing sulphur, for details of which reference should be made to the official publication.

In the third paper Mr. Russell spoke of the influence of the nascent state on the combination of dry carbon monoxide and oxygen. He is able to confirm the observations of Professor Dixon and others that a mixture of carbon monoxide and oxygen in proportions to form CO_2 is not completely burned when sparked. Indeed, there are certain conditions in which the mixture shows no chemical reaction at all. Incidentally Mr. Russell mentioned that he had made some experiments with chlorine monoxide and carbon monoxide. The former explodes violently when organic matter is brought into contact with it, so he prepared it and distilled it in a glass apparatus, the parts of which were fused together. He was able to conduct his experiments with comparative safety, but on one occasion two or three drops of chlorine monoxide were left in a retort, which was wrapped in a duster and placed on a strong wooden box, when suddenly it exploded. He did not know why. The retort was reduced to powder, the duster torn into shreds, and the box knocked into smithereens.

The discussion on this paper was taken part in by Messrs. DIVERS, BAKER, GROVES, and the PRESIDENT, all congratulating Mr. Russell on the excellence of his work.

MR. WILLIAM JACKSON POPE

was finally called upon to read a paper for which the younger section of the audience had been expectantly waiting. It was entitled "Asymmetric Optically Active Tin Compounds—Dextromethyl-ethyl-propyl Tin Iodide." This was a continuation of the research in which Mr. Pope and Mr. S. J. Peachey are engaged at the Goldsmiths' Institute, New Cross, the object of which is to find out whether there are other elements which have an atom similar to the asymmetric optically active carbon atom. They have already shown that nitrogen is so under certain conditions, and that sulphur, as far as they have been able to ascertain, is not. Now they were able to prove that tin—an element far away down in the same periodic group—has an atom of that kind. They built up the compound above referred to, which is an oil of intensely irritating odour, whose vapour peels off the mucous membrane of the fauces when it is breathed, and found that, as synthetically prepared, it is not optically active, but when they combined the substance with dextro-camphor sulphonate they obtained a compound in definite crystals which had a rotation of $+95^\circ$. The CH_3 , C_2H_5 , and C_3H_7 groups are, of course, optically inactive. As the sulphonate that they had added has an opticity of $+51^\circ$ only, it was inferred that the tin compound had augmented the opticity; and that was found to be so, for when they removed the sulphonate from the compound the methyl-ethyl-propyl tin iodide was found to have an opticity of $+23^\circ$, and further experiments may enable them to get it nearer its theoretical value.

A burst of quite hearty applause greeted this announcement, and Mr. Pope proceeded to state that the compound

undergoes racemisation easily. He proposes to examine in a similar manner the whole of the elements in the periodic group which includes tin, and hopes thereby to add another copestone to the periodic structure. Rarely have we heard a young man so heartily complimented from the presidential chair as Mr. Pope was by Professor THORPE.

THE NEW FELLOWS

were then mentioned, the whole of the thirty-eight candidates being elected. Amongst them were Mr. A. H. Bennett, chemist to Messrs. J. B. Lawes & Co., tartaric and citric acid works, Milwall; Mr. William Mair, of Messrs. Fletcher, Fletcher & Co.'s staff, North London Chemical-works; and Mr. Fred Pilkington Sargeant, pharmaceutical chemist and teacher of chemistry, Springfield Place, Leeds. Finally, the PRESIDENT intimated that on March 8 there will be an extra meeting, when Mr. Robert Warrington will deliver a lecture on the nitrification organism.

Optical Society.

At the adjourned meeting held on February 15 the discussion on the differences between the Society and the Spectacle-makers' Company (*C. & D.*, February 17, 1900, page 281) was resumed. Mr. W. H. E. Thornthwaite (the President) was in the chair.

After the SECRETARY had read some letters, and Mr. HYATT-WOLFF had explained the position of the *Optician* in the matter, Mr. D. MARKS (Botwright & Grey), after controverting the statement that the wholesale houses were opposed to the success of the Spectacle-makers' Company's scheme, proposed the following amendment of the motion before the meeting:—

That the meeting of the members of the Optical Society, having heard the statements of Messrs. Aitchison and Paxton relative to their resignation from the Optical Committee of the Worshipful Company of Spectacle-makers, and also warmly desiring the success of the certification-scheme of the Company, approves the action of these gentlemen in their resignation; and in view of the suggestion made at the meeting of this Society on the 8th inst., and the expressed willingness of the President, Mr. W. H. E. Thornthwaite, to respectfully ask the Court of the Company to arrange for the reception of a deputation from this Society in order that the points connected with the trade may be discussed, resolves to appoint six members of the Society, who are also preferably members of the Company, to wait upon the said Honourable Court as soon as Mr. Thornthwaite has made the necessary arrangements for the same.

Mr. DIXEY seconded the amendment, and maintained that the Optical Committee's functions were not only advisory but legislative and administrative.

Mr. HARRIS then withdrew the motion which he submitted at the meeting reported last week, and the amendment became the substantive motion.

Mr. PURSER and Mr. SALT called attention to some statements about the S.M.C. scheme in the lay Press which they considered reflected on the wholesale trade, and

Mr. RAPHAEL explained the connection Mr. Laurance originally had with his firm, which ceased when he was appointed official instructor to the S.M.C.

Dr. WALMESLEY reminded the meeting that although the Optical Society had no *locus standi* in the matter, it was better that it should place its grievances before the Company, and not indulge in the bad practice of sitting on the safety-valve.

Mr. THORNTWHAITE went into particulars of the inception of the S.M.C. scheme, and promised to do what he could to bring about a settlement of the grievances.

The motion was then put, and, having been carried, the meeting proceeded to elect six of their number to serve on the deputation which is to wait on the S.M.C. at an early date.

Plymouth, Devonport and Stonehouse Chemists' Association.

THE quarterly meeting of this Association, was held on February 21, among those present being Messrs. Maitland (President), Park, Turney, Woods, U'Ren, Weary, Cocks and G. Breeze (Hon. Secretary). It was decided to oppose the

Companies Bill and to interview various local members of Parliament with the object of protecting chemists' titles and of preventing limited liability companies, conducted by unregistered persons, dispensing and selling poisons as in case of individuals.

Federation of Chemists' Associations.

A MEETING of the Federation of Local Pharmaceutical Associations was held at Lay's Hotel, Surrey Street, W.C., on February 20, when all members of executive were present. Mr. Smith, of Liverpool, presided, the others present being Currie (Glasgow), Peck (Cambridge), Thompson (Birmingham), and J. Cocks (Secretary).

A long discussion took place as to what action should be taken to oppose the clause in the Companies Bill affecting chemists. It was decided to ask all Associations and local secretaries to oppose the

COMPANY-PHARMACY CLAUSE

by adopting one of the following resolutions, and to interview their respective members and ask them to oppose the clause in Parliament:—

1. To protect chemists' titles and make it illegal for companies of unregistered persons to keep open-shop for the sale of poisons, as in case of individuals.

2. To protect chemists' titles and businesses, or shop to be conducted by a qualified manager, whose name shall appear distinctly over place of business.

It was also decided to send the following

SUGGESTIONS TO ASSOCIATIONS

for discussion:—

1. Disadvantages of ordering B.P. preparations under fancy names, with the idea of bringing the same to the notice of local medical men.

2. To discuss the idea of approaching the Poor-law authorities, so that in filling vacancies for dispensers under their control candidates holding Qualifying examination certificates of the Pharmaceutical Society only be eligible.

3. To forward to the Secretary of the Federation views of the Association as to whether chemists should be included in any future Bill introduced into Parliament dealing with the regulation of hours of business in retail shops.

4. Seeing that efforts are now being made to increase the membership of the British Pharmaceutical Conference, the Federation commends the objects and advantages of the Conference to the notice of local Associations.

5. The desirability or otherwise of holding the Pharmaceutical Society's annual meeting during the Conference week.

Chemists' Assistants' Association.

THE usual weekly meeting of the Association was held on February 15 at 73 Newman Street, W.C., when Mr. W. A. KNIGHT, pharmaceutical chemist, read a paper on

INSECTS WHICH INFEST CRUDE DRUGS.

The preservation of drugs from the attacks of insects is a subject which has received but little attention in this country, although every retailer suffers to some extent from the depredations of these pests. Mr. Knight proceeded to give a short classification of insects, with their habits and foods, which was necessary to the pharmacist who desired to combat them. The word insect is derived from two Latin words, *in*, in, and *secto*, I cut, the thorax being almost severed from the abdomen by a constriction.

The word "entomology" has a similar meaning, being derived from the Greek *en*, in, and *temon*, I cut.

The group of insects forms one class of the great *Phylum annulosa*, which is distinguished by having a "metameric segmentation," or repeated appearance of similar parts. This segmentation is especially well seen in the grub or larvæ stage of the beetles.

A true insect is defined by zoologists as "An articulated animal, breathing by tracheæ, divided into three distinct portions—*i.e.*, head, thorax, and abdomen—passing through a series of transformations, and having, in the perfect or winged state, six articulated legs and two antennæ." Although such animals as spiders and centipedes are usually included under "Insects," the above definition will show that they have no right to the title.

A typical example of an insect is the look-lose—a

species of *Atroxas* (fig. 1). Insects are divided into several orders, of which the seven following are the more important:—

1. Order *Coleoptera* (*kolcos*, sheath, and *pteron*, wing), which comprises the beetles. The wings are covered, when not in use, by hard horny elytra (wing cases). They have powerful, biting jaws.

2. Order *Lepidoptera* (*lepis*, scale, and *pteron*). This order comprises the butterflies and moths. The wings are covered with fine scales. The mouth of these insects is adapted only for sucking.

3. Order *Diptera* (*dis*, twice, and *pteron*). These are the two-winged flies of which the common house-fly is a member.

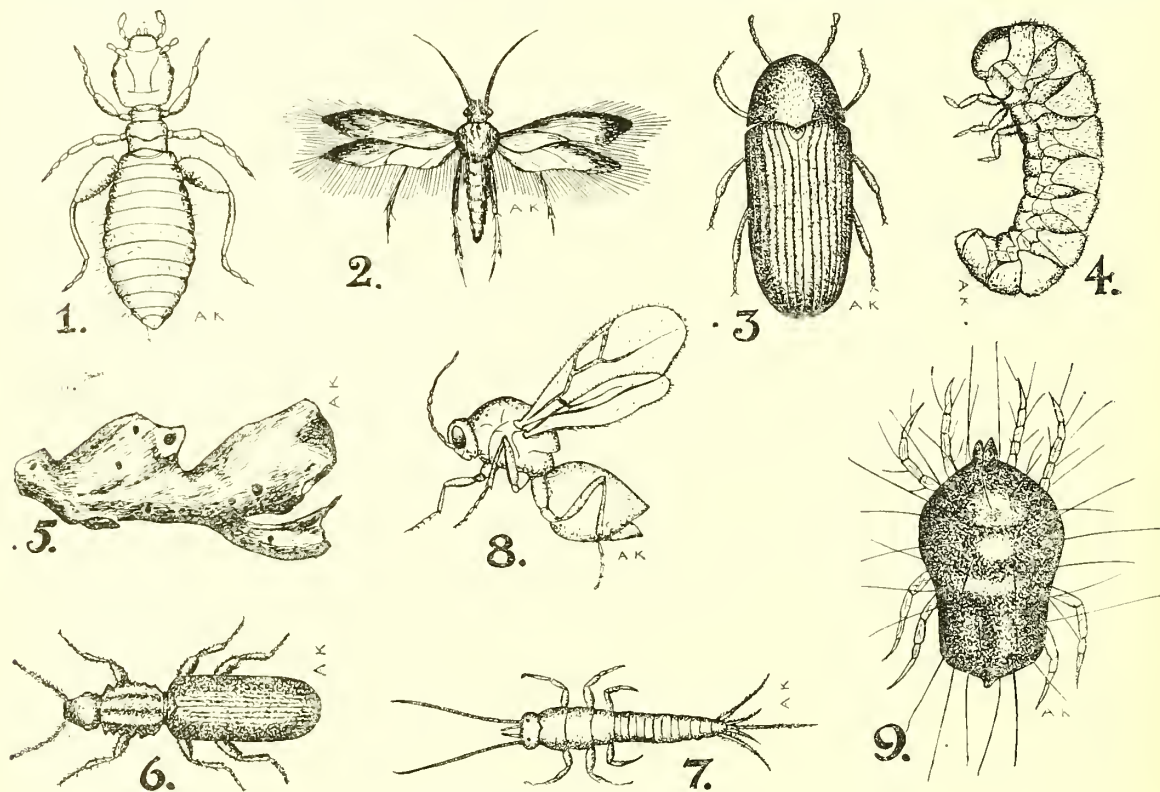
4. Order *Hymenoptera* (*hymen*, membrane, and *pteron*). This order includes the saw-flies, the gall-flies, ants, bees, and wasps.

5. Order *Heteroptera* (*heteros*, other, and *pteron*). This comprises the water-fleas and bed-bug. The wings are partly leathery and partly membranous.

6. Order *Orthoptera* (*orthos*, straight, and *pteron*). These insects have four wings, the anterior pair of which are leathery,

The most serious and common pests of drugs belong to the family *Ptinidae* of the N.O. *Coleoptera*. They are cylindrical, pubescent insects, and eat anything and everything. They are responsible for worm-eaten furniture and attack drugs. A specimen of pyrethrum attacked by this pest was shown. The commonest member of this family is *Sitrodrepa panicea*, of which both the adult (fig. 3) and larval (fig. 4) stages are shown. A closely-allied insect is *Lasioderma*, the ginger beetle, and is often found in ginger (fig. 5). Another member of the *Ptinidae*, *Bostrichus* sp., attacks sweet almonds.

An allied family, the *Cucujidae*, furnishes a light-brown, flattened beetle with clubbed antennae. It belongs to the genus *Silvanus* (fig. 6), and is sometimes found in senegaro-root and quince-seed. The families *Tenebrionidae* and *Heteridae* also have representatives among the pests. *Tenebrio obscurus* and *T. molitor* are dull-brown, flattish, square-bodied beetles, with extremely hard elytra which are not easily pierced with a pin. Several weevils—*Centoryn-*



INSECTS WHICH INJURE DRUGS.
Drawings (enlarged) by Mr. A. Kirkland.

the posterior pair folding longitudinally like a fan. The order includes the cockroaches, grasshoppers, and locusts.

7. Order *Neuroptera* (*neuron*, nerve, and *pteron*). This order includes the dragon-flies and stone-flies. The wings are naked, and reticulated with nerves.

■ Whilst this classification will be found useful for obtaining the name and relations of the insect, from the pharmacist's point of view the only classification necessary is into harmless and injurious insects. Evidently only those insects which have strong biting mouths can deleteriously affect hard, dry drugs, insects with sucking mouths having a much more restricted area. To the former category belong the beetles and cockroaches, whilst the bugs and moths constitute the sucking insects. In some cases—e.g., mites and ants—the mouth is adapted for both biting and sucking.

Although in the adult stage these sucking insects are harmless, many of them have, in the larval or grub stage, biting jaws, and hence are injurious. A good example is the house-moth—*Tinea pelionella* (fig. 2)—which is quite harmless in the winged stage, but in the grub condition has a terrible combination of a tremendous appetite, and sharp, powerful jaws.

chus sp. and *Calandra oryza*—are also often found in seeds the latter, as its name implies, infests rice, whilst the former is often found in maw-seeds.

The *Lepidoptera* are represented amongst the pests only by their larvæ, the adult butterfly or moth being harmless. The larvæ of this order have usually eight pairs of legs, the anterior three being thoracic, and the posterior pair attached to the last segment of the body, whilst the larvæ of beetles (fig. 4) have usually only three pairs of thoracic legs.

To this order belongs the moth the well-known grub of which causes such serious loss. It belongs to the family *Teneidae*, but no member of this family is found in drugs.

Gelechia cerealella, the grain moth, is another lepidopteron which, in the larval condition, attacks wheat and other kinds of grain.

The N.O. *Diptera* is represented by *Trypeta arnicivora*, sometimes found, as its name implies, in arnica.

A wingless insect, *Lepisma* sp. (fig. 7), of the N.O. *Thysanura*, has been found in mezecon-bark.

The N.O. *Hymenoptera* is represented by *Cynips Kollarî* (fig. 8), often found in galls. This insect, however, belongs to the group *Entomophaga* (*entomos*, insect, and *phagein*, to eat),

and is hence beneficial. It lays its eggs on the larvæ of the beetles, and the young hymenopteron, when formed, lives on its host.

Finally, we have the mites (*N.O. Acarina*). These are minute creatures with piercing beaks. They have eight legs, and are therefore not true insects. Many species are found in flour, cheese, and sugar, and even cantharides. The species *Glyciphagus spinipes* (fig. 9) is often found in cantharides.

With regard to the remedies which may be applied, many antiseptics have been proposed. Many of the remedies are toxic, and are hence almost worse than the disease. The vapour of carbon bisulphide is fatal to insects in all stages except the egg-stage. If the drugs are placed in a tightly-closed container, a few drops of carbon bisulphide sufficient to charge the vessel with vapour poured in, any larva or adult beetle will be killed.

One great advantage of carbon bisulphide is its ready volatility, and the fact that its vapour passes off after one or two hours' exposure.

DISCUSSION.

The PRESIDENT complimented Mr. Knight on his paper. It dealt with a subject of importance and interest to chemists and druggists, and contained many new details. Speaking of zoology, chemists had recently that branch of biology brought to their notice by reason of the interest recently developed in the malarial mosquito. As to the method of destroying insects by means of carbon bisulphide, he thought that perhaps chloroform would have been more efficacious in killing groups of larvæ, being more poisonous than carbon bisulphide.

Mr. STROTHER referred to the action of *Pyrethrum roseum* on insects, and also to the insect found in linseed meal and the dangers of a poultice containing same being applied to an open wound.

Mr. L. MOORE inquired if formic aldehyde is not preferable to carbon bisulphide.

Mr. VALLI said the advantages of the use of formic aldehyde would be not only upon the insects but also upon the bacteria which infested drugs, and if its action had no bad effects on the drugs he thought it would be better than carbon bisulphide, which had no effect on bacteria.

Mr. PECK said he had found that an ordinary house-spider, a fly, and a beetle soon get over the effects of a dose of carbon bisulphide.

Mr. MORLEY TAYLOR spoke of the value of a knowledge of entomology to chemists, and congratulated Mr. Knight on his paper. He had, however, not touched upon the use of cyanide-vapour as a preservative.

Mr. KNIGHT, in reply, said he found carbon bisulphide perfect in its effect as a killer in all except the egg-stage of the insects. Only 3 or 4 drops is required. With chloroform a much larger amount was needed, and there was difficulty in getting rid of the vapour afterwards. In materia medica the odour of the drug was a characteristic, and it was advisable not to have the odour of a preservative present. He did not think cyanide-vapour equal to carbon bisulphide, which was the strongest insecticide. With regard to formic aldehyde, he thought that to put into a receptacle containing a drug a body which so easily absorbed oxygen was to be deprecated, as it might take up that oxygen from the alkaloids of the drug itself, and so destroy its therapeutic value. As to bacteria, it was quite impossible to keep them out of a container which was constantly opened, and as they were mostly destroyed by the solvents used in extracting the drug they need not trouble much about them.

A hearty vote of thanks was accorded Mr. Knight, who acknowledged his indebtedness to Mr. E. M. Holmes and Mr. Kirkland.

Liverpool Pharmaceutical Students' Society.

At the meeting held in the Liverpool School of Pharmacy on Friday evening, February 16, Mr. PROSPER H. MARSDEN, who presided, exhibited three

SAMPLES OF ASAFETIDA,

received from Mr. J. C. Umney. No. 1 consisting of the finest tears picked by hand from a case of the finest asafetida obtainable, which, it was explained by Mr. Umney, was one of ten out of over 500 cases recently imported. In

these ten cases the "tears" constituting this sample only existed to the extent of 4 or 5 per cent., and answered all the B.P. requirements. No. 2 was a fair bulk sample from one of the finest cases to be obtained on the London market. No. 3 was an average sample from a case of rough asafetida, not for use in pharmacy, but for other economic purposes. It was explained also that asafetida equal to No. 1 could be had, if the price asked was given.

A fine sample of sagapenum, from Mr. Umney, was also shown by Mr. Marsden.

Dr. J. B. NEVINS then gave an extremely interesting lecture on

THE HISTORY OF MATERIA MEDICA,

in the course of which he sketched the methods of treatment adapted by doctors from the Pharaohs' time to the present day. Among the Egyptians the healing art had been studied from time immemorial, and whatever was known by the Hebrews in this respect came undoubtedly from their Egyptian oppressors. Moses was a doctor, and the trials of strength between him and the magicians or sooth-sayers showed that they imitated fairly well the wonders which he was enabled to perform by divine assistance. The plagues brought on the land of Egypt were, however, beyond their power to either stay or produce. In Holy Writ a list of the individuals to whom entrance into the kingdom of Heaven is forbidden is found, and amongst the people enumerated are magicians, or, as it is in the Greek, pharmakoi. From this it is evident that the doctors were looked upon as having dealings with other gods or unclean spirits, and that it was to their command over these spirits, and not to their knowledge of the use of drugs, that they owed their fame for skill amongst their patients.

A point worth noticing is that the whole of their treatment was directed primarily to the cure of wounds, and all their prescriptions of which we have any knowledge contained bodies of an antiseptic nature. For instance, tar, pitch and sweet-smelling gums were burnt and linen cloths held in the vapours, and these cloths subsequently applied to wounds. Here we have the essentials of antiseptic surgery, in the form of creosote, essential oils and phenol-containing bodies. Doubtless before the time of Joseph the knowledge of these simples had been as well diffused in India and the East as it was in the land of Egypt, for we must bear in mind that these sweet-smelling gums and resins came from Arabia, being carried down to Egypt by the Ishmaelites, to a party of whom Joseph was sold by his brothers.

The carminatives used at the present day were in use then, particularly those of umbelliferous origin. The Egyptians suffered much from indigestion, obesity, and constipation. For these, fasting, emetics, and clysters were about the sole remedies. Clysters were administered by means of a quill or hollow bone attached to a bladder. Animal substances, frequently of a most disgusting character, were freely prescribed. They usually acted as emetics.

Moses had been long enough among the Egyptians to be able to learn their wisdom, and the use of large quantities of incense prescribed at the burnt offerings in the Temple may be regarded as an evidence that he appreciated the importance of a certain amount of antiseptics where the odour of the quantities of animal blood from these sacrifices, and the effluvia from vast congregations gathered together in such warm countries as Palestine and Egypt, had to be neutralised.

The manna of the wilderness was no doubt of a certain amount of medicinal benefit to the Israelites, for one reason, because they were forced to turn out in the early morning to gather it—a hygienic measure of some importance. As to the animal remedies, Moses was strongly against them.

Coming to more recent times, the lecturer instanced the use by Hippocrates of antiseptics such as turpentine, resins, and essential oils. The Temple of Æsculapius was the forerunner of the hydropathic establishments of modern times. The doctrine of signatures was also referred to by Dr. Nevins, and he spoke in conclusion of Celsus, Galen, and Paracelsus, and the gradual increase in the number of remedies employed in medicine.

A good discussion followed, and a hearty vote of thanks was given to the veteran lecturer for the interesting treat he had given the Association.

Western Chemists' Association.

No subject was specialised for discussion at the meeting of this Association on February 21, but the President (Mr. J. F. Harrington), with consummate tact, initiated a series of interesting and profitable debates on various trade-matters. The attendance was good (about two dozen being present), considering the counter-attraction at the Holborn Restaurant, and the meeting was characterised by good-humoured differences of opinion which were refreshing.

The CHAIRMAN first suggested that Mr. WARREN should give them some account of how the Conference arrangements were going on, and that genial Councillor willingly acquiesced. He had sent round circulars, he said, asking for suggestions and subscriptions for the entertainments to be provided for visitors, and he had nearly 250/ promised him already, "and a promise from a chemist," added Mr. Warren, "is, we all know, as good as cash." There was to be a committee-meeting next week, and suggestions would be considered; but he thought there would be no lack of entertainments. On the other hand, there would be such a plethora of good things that the most difficult task would be to discriminate.

The CHAIRMAN suggested that there would be no difficulty in getting permission for those who wished to visit the large show-houses (such as Devonshire House), and

Mr. CRACKNELL propounded Mr. Carteighe's idea of an excursion down the river from Marlow in barges.

The Conference disposed of, Mr. HICK proposed that the meeting should "draw" the two members of the Council present on the Companies Bill, but they were not to be "drawn." Afterwards Mr. PARKER said it was time they as pharmacists began to consider their *locus standi* in regard to the Government and the public generally. It was common experience, he said, that the qualifications of a dispenser were not recognised. The Government the other day, when advertising for army dispensers, had the impudence to require that candidates should either hold the Minor qualification or have had three years' experience in dispensing. To say that these qualifications were synonymous was a gross insult to pharmacists as a body. Then their President, when he approached the Government a few weeks ago on the Companies Bill, was distinctly snubbed. He urged, therefore, that they should endeavour to cultivate in the public mind a proper awe for the dignity of their calling.

Mr. GAUBERT (Wembley) said he was considerably astonished to hear a speaker at their last meeting say that the law regarding the dispensing of poisons was that the qualified man was only necessary for the handing-over of the poison to the purchaser. The errand-boy could do the dispensing as long as the qualified man effected the sale. That being so, he was not surprised that the Government would take anybody as dispensers. With regard to the Companies Bill, chemists did not seem to know what to do, and nobody knew what the Pharmaceutical Council were going to do. In his opinion, titles were not in danger. They were legally obtained, and could not be taken away, and if they could get the Government to concede that only "chemists" could dispense prescriptions they would obtain all that was necessary.

Mr. BARNETT thought the two questions "What is a poison?" and "What is an apothecary?" ought to be decided. Was chloroform-water a poison? Mr. HICK said, "No," but Mr. BARNETT contended that it was a preparation of chloroform. The Apothecaries Act was then the subject of some controversy, and in this connection Mr. BRIGHT (Willesden) related his experience. A few years ago he (Mr. Bright) was summoned on three charges under the Apothecaries Act. He referred his case to the solicitors for the Pharmaceutical Society, who informed him that he had no case and should pay up. However, he received a good deal of valuable advice from THE CHEMIST AND DRUGGIST, acting upon which he managed, with the aid of a skilful lawyer, to show the absurdity of the charges brought against him, and successfully defended the case. His opinion was (like Mr. Parker's) that they should endeavour to make the public better understand their position, and should be a good deal more assertive. The talk then drifted to prescribing, nearly every member confessing that he had prescribed, and Mr. WARREN asserted that he had often prescribed for the doctors themselves.

The CHAIRMAN then called attention to the merits of the recently-formed Chemists' Defence Association. He had seen excellent results accrue from similar associations, and he was certain that, if properly worked and thoroughly supported, the Association would be an excellent thing for the trade. He asked Mr. Cooper, who is a prominent member of the Defence Committee, to say a few words on the subject. Thereupon Mr. COOPER explained the aims, objects, and working of the Association, particularly emphasising the facts that the Association would not help the dishonest man; would not defend Pharmacy Act prosecutions; and if a "black sheep" should by some mischance happen to get to be a member, although bound to defend him the first time, they were not obliged to take him on again. Mr. Cooper's arguments and the discussion which it evoked were so convincing that ten new members then and there gave their names to Mr. Cooper to be added to the Defence Association's list.

This was considered a fitting conclusion for the proceedings.

Glasgow Chemists' and Druggists' Assistants' and Apprentices' Association.

AT the weekly meeting held on February 16, Mr. J. P. Gilmour in the chair, Mr. JOHN LOTHIAN, Ph.C., gave a lecture on "Urine-analysis," telling all about the various tests which are applied to urine in order to determine its character and aid in the diagnosis of disease, and showing practically how the tests are carried out. The CHAIRMAN, in commenting upon the lecture, referred to the well-authenticated but little-known fact that a diabetic urine may have as low a sp. gr. as 1.010 or 1.015. Speaking from his personal experience of hospital-treatment of diabetes, he said that although there had been active experimentation with other agents—*e.g.*, nitrate of uranium—the tendency always was to go back to codeine. The mention of the polarimetric determination of glucose reminded him that some years ago Dr. Dawson Turner, of Edinburgh, had made a research as to the electrical conductivity of morbid urines, which showed that in certain renal and urinary diseases electrical data applicable to diagnosis might be determined, but the method seemed to be merely tentative and academic.

Business Changes.

Notices are inserted free in this section if properly authenticated.

MR. W. A. BURNAGE, chemist and druggist, has succeeded to the business lately carried on by Mr. Walter Asten, High Street, Erdington, near Birmingham.

MR. JAMES BAYNE, F.C.S., has taken over the practice of analytical and consulting chemist lately carried on by Dr. Robert Arnot at 49 Moorgate Street, E.C.

MR. H. SQUIRE has opened an attractive pharmacy at 61 Goodge Street, Tottenham Court Road. The fittings of this (and four other establishments for Mr. Squire) were supplied by Messrs. J. & N. Bygrave, Shepherdess Walk, City Road, N.

IN consequence of the death of Mr. J. Arthur Malam essential-oil merchant, Dunster House, Mincing Lane, E.C. his business will be carried on by his partner, Mr. J. W. Ward, in conjunction with Mr. T. J. McArthur, under the name of Malam & Co.

BOOTS (LIMITED) have concluded an agreement with the Blackpool Corporation to take over the whole ground floor and cellar of St. John's Buildings, and also in due course the shop occupied by the Williams Deacon and Manchester and Salford Bank, together with the shop Boots (Limited) now occupy, for a term of ten years at a rent of 470/ a year.

TO CLEAN SPATULAS use a soft brick. When the blades are attacked by rust, rub them over the surface of this, using a little water if necessary.

Observations and Reflections.

By XRAYSER.

THE CHEMIST AND DRUGGIST has again done a valuable service to pharmacists by offering a carefully drafted statement of objections to Clause 2 of the Companies Bill. The Pharmaceutical Council can hardly complain of amateur interference with their prerogative this time, for they have made it clear that they have no advice to offer, no policy to propose. If, however, a few hundred chemists will enclose THE CHEMIST AND DRUGGIST sheet to their parliamentary representatives, with a letter from themselves stating expressly their views on the clause, a great effect will be produced. [See announcement on page 360.—EDITOR.]

CLAUSE 2 of the Companies Bill is curiously expressed in several respects. It is not seemly for a poor pillman to criticise a Lord Chancellor's legal phraseology, but he may perhaps dare to ask what it means. First, the clause says "No company may carry on the business *and* use the description," &c., unless the business is *bona fide* conducted by a qualified person. Should not "or" replace "and" in that sentence? As it stands the clause would allow a company to do either of the things mentioned without any qualified management, but not both.

THAT ONE QUALIFIED ASSISTANT would suffice for a hundred shops, according to this clause, is quite certain. When his Bill was first published it was generally thought that the Lord Chancellor must have intended to require the presence of a qualified manager in each place, but as he adheres to his form of expression notwithstanding that its effect has been pointed out to him, we are forced to believe that he means exactly what he says. Thus, to take a concrete example, Messrs. Boots (Limited) would only need to employ a single pharmaceutical chemist who might be kept in their Nottingham stores, and have his name conspicuously posted there ("shop *or other place* in which the business is carried on"), and they might then call themselves pharmaceutical chemists all over the country. Of course it might become a question for a Court whether that man at Nottingham did "*bona fide* conduct the business" at Liverpool but I think all analogy and precedent would be in favour of the view that he did. Who is it who "*bona fide* conducts" Messrs. Boots' business now? A gentleman at Nottingham, I fancy.

"AS THE CASE MAY REQUIRE."—Can anybody connect that phrase with any preceding part of the clause so as to make sense of it? I make out that what is meant is that the company may use the one title or the other, according as they employ a pharmaceutical chemist or a chemist and druggist. But if so that is certainly not expressed by the words "as the case may require" placed where they are.

"SUBJECT TO THIS PROVISION," continues the clause, "anything which would be an offence under Section 15 of the Pharmacy Act of 1838, if committed by an individual shall be an offence if committed by a company." That reads fair, but what does it cover? Certainly not the main mischief against which Section 15 was directed, which was the keeping open shop by unqualified persons for the sale of poisons. The companies are to be expressly legalised out of that prohibition. It cannot cover the selling of poisons, because no company, as a company, can do that. It is settled law that the unqualified individual who sells, and not his employer, is the person liable to the penalty, and I think the same rendering would apply to persons who may compound medi-

cines of the British Pharmacopoeia otherwise than by its formularies. The company can no more compound than it can sell. It may be that the clause would make a company liable for not conforming with the poisons regulations, but this is all that it would do, and it is not certain it would do that. Judging from his speeches, I cannot help thinking the Lord Chancellor fancies that this part of the clause would make companies liable to some penalty if unqualified persons dispense in companies' shops. It does not need a judge to tell him that it would certainly not have this effect.

MR. JOHN TAYLOR, of Bolton, has a keen insight which always makes his addresses good reading. His opinion that cash chemists and pharmacy-companies have benefited the trade is undoubtedly true up to a certain point. Those chemists who have survived the competition are smarter and do their business better than it was done twenty or thirty years ago. And the effect of this on the companies is notable. They are being driven more and more into other lines, and their shops are becoming less like pharmacies than they were. This is obvious to anyone who only goes by them on a 'bus. But what is equally obvious is that their cultivation of the put-up trade in their own goods is pursued with even more assiduity than ever. This is their stand-by, and the proprietors of specialities who insist on regarding the big cutters as their best friends are apparently the only people who fail to perceive the fact.

MR. HENRY WHITTLES, of Newent, is not perfectly accurate, I think, in regard to the Pharmacy Bill which he says the United Society of Chemists and Druggists opposed. That Society first opposed a suggested Bill drafted by a committee of the General Medical Council, but which was not adopted by that Council, much less introduced into Parliament. By that draft the examination and registration of pharmacists generally would have come under the control of the Medical Council. The Bill certainly proposed that only duly-examined persons should be allowed to dispense medical prescriptions, but pharmaceutical chemists were not specifically named. Nor did the draft indicate that the rights of existing chemists and druggists would be recognised; but nobody seriously supposed that it was intended to destroy the rights of anybody then in business. The United Society worked the threat of that interference fer all it was worth, and this, following on the exemption of pharmaceutical chemists from jury-service, convinced its leaders of the necessity of preparing a Bill of their own. The Pharmaceutical Society followed suit, but even their Bill did not propose to restrict dispensing to their own members; it was not quite so bad as that. It was out of these materials that the Act of 1838 was ultimately evolved.

THE POISON-DEALER'S AGENT.—The *Law Times* has a comment on the case of the Pharmaceutical Society v. White, the appeal in which is now pending. The legal journal's sympathies seem to be with the appellant society. This may be only a natural inclination to encourage litigants who keep the ball rolling, but the *Law Times* regards it as "fortunate" that the penalty provided by the fifteenth section of the Pharmacy Act is recoverable through the County Court, so that Section 45 of the Judicature Act does not bar appeals in such cases. It was held, it will be remembered, by Justices Grantham and Channell that the defendant, who was an agent for the makers of a poisonous weed-killer, and did not actually handle the article, was not the "seller" within the meaning of the section. "Beyond all doubt," says the *Law Times*, "the defendant sold the weed-killer in the ordinary sense of the word sell, but did he sell it within the terms of a penal statute, which, like all other penal statutes, must receive a strict interpretation?" That is the question for the Court of Appeal to decide.

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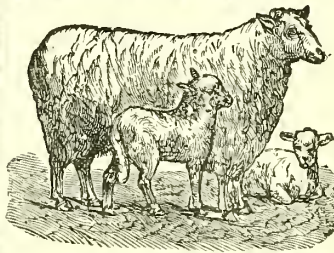
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Editorial Comments.

Side-lines to Pharmacy.

THERE has been a disposition of late by those in closer contact with the professional side of pharmacy to look on the trade side of it as less worthy of attention. This, we think, is a mistake. The business of a chemist and druggist has always been of a mixed nature, and whilst the practice of pharmacy proper yields such slender employment, and, consequently, inadequate remuneration, the rest of the business must remain of a heterogeneous character. If there were an

opportunity for increasing the pure pharmacy section of the trade, we would be the first to urge the importance of keeping it in the front; but there cannot be any such opportunity so long as nine-tenths of the general medical practitioners in England and Wales do their own dispensing. That fact alone is responsible for the remarkable development of the retail side of pharmacy, and the consequent skill which chemists and druggists have shown in introducing new side-lines to replace old ones. When the sale of medicines first became a separate business, apart from the spices and other things once ranked as groceries, cannot be traced accurately, but it seems certain that the apothecary's business comprised many things which grocers exclusively sell to-day. The druggist is the successor of the apothecary, who has now become a medical practitioner. The sale of veterinary medicines, although not strictly a side-line, is one of the oldest adjuncts to a pharmacist's business. According to Jacob Bell, the sale of horse-medicines was looked on as beneath the dignity of a pharmaceutical chemist; and as it is certain that Bell did a good trade in supplying veterinary medicines, he has left it on record that he regarded the prejudice against selling horse-medicines as at variance with common sense. The sale of these medicines and agricultural requisites is a paying line in many country shops, and is capable of being extended. The weed-killer trade has drifted somewhat, and gardeners have come to look upon the chemist's as the wrong place to get the very necessary greenhouse-fumigant. This should not be, especially in face of the fact that the law has placed the sale of poisons in the hands of registered chemists. The sale of garden-seeds is a fairly profitable extra which, at the spring-time, may be made to yield a fair return to the pharmacist. The supplying of paints for house-decorating is an adjunct still found in country trade, and, with tinted paints, this is a daintier side-line than it used to be, and one which many more chemists might with advantage take up. Tea and coffee selling by pharmacists is really a revival of an old practice, the druggist being formerly looked upon as one of the dealers in these commodities. We have spoken to elderly pharmacists who gave us the impression that their profit on tea "paid the rent." The packet-system has made it possible for many chemists to develop a considerable business in tea and coffee. An American contemporary gives a novel turn to views in regard to the spice-trade in the following paragraph:—

We must handle only the best quality of spices. Offer nothing for sale that isn't fresh and of the highest grade. Examine your spices and see that they have not been partially exhausted or adulterated. Then, as far as practicable, grind your own spices. Don't have your mill in the back room, where no one ever sees it. Operate it where people can occasionally see how it is done. The fine aroma thrown off while grinding cassia, cloves, and other strong aromatics attracts the attention of your customers, and answers for a great deal of newspaper-advertisement. Sample your trade regularly by sending small samples to the houses. This can be done through the mail or direct delivery. The neatest thing in which to put up samples is a small envelope about 2½ by 4 inches, made of waxed paper. This paper will not become oil-stained by the spices. You will be surprised to see how soon people will appreciate your efforts and what a nice trade you can secure.

Perhaps these departments of business strike some as savouring too much of the grocer. Well, the drug-trade of to-day is fortunate in having a greater choice of side-lines than in earlier generations, especially scientific side-lines. This is a branch of business which is now in the specialising process; public tastes are improving as education is improving, and there is now an enormously increased demand for scientific apparatus generally and optical and photographic goods. There is no shopkeeper so well placed as the chemist and druggist for taking up the sale of such goods as these. He

starts from a scientific basis formed in acquiring the skill and knowledge demanded of him by law before he can do business for himself in pharmacy, and this basis gives him an advantage over jewellers, ironmongers, and similar tradesmen who are taking up the sale of cameras, spectacles, and anything else that is hard or metallic. There is more than the physical properties of the goods to be considered in cultivating this side-line, and those of our subscribers who have read the treatises in our *DIARY* this year will appreciate what we mean. The main thing for business-men to keep in mind is that there is a trade in these scientific side-lines—a sure trade, increasing and likely to stay; while doctors' prescriptions are so little written, and those that are go to the Duncans, Grattans, and Squires of pharmacy. It is almost waste of time to compete with such as these, or for one to put it forth to the world that he was formerly with one of them. Business success nowadays does not come by leaning on somebody else, but by pushing ahead, seeking fresh woods and pastures new, and being individualistic without being obtrusive.

Adulteration=law.

WHEN any of our schools of pharmacy start teaching pharmaceutical jurisprudence they will find a useful text-book in "The Sale of Food and Drugs," by Mr. T. C. H. Hedderwick, M.P., barrister-at-law. The three Acts of 1875, 1879, and 1899 are printed in full, with the author's notes upon each section. The Margarine Act of 1887 is similarly dealt with. The value of the treatise, however, depends especially upon the fact that it contains High Court and other decisions on the Acts. Over a hundred cases contested under these Acts in the High Courts are cited, thus showing what a thorny question the legislation for the distribution of food and drugs has proved. The fights commenced over the applicability of the 1875 Act to wholesale deliveries under contract. Mr. Justice Mathew decided that it did not apply, and that proceedings must be taken in such cases under 1879 Act. Section 2 contains the definition of the term "food." The Court have been called upon to define that definition, and have held that "baking-powder" is not a food within the meaning of the Act. The 1899 Act, of course, re-defines the term "food," and it now includes "any article which ordinarily enters into or is used in the composition or preparation of human food, and also flavouring-matters and condiments." The term "drug" has also proved a worry. The Courts have had to tell on different occasions that chewing-gum, beeswax, linseed meal, and arsenical soap were not "drugs." In the case of the soap the Magistrates said arsenical-soap was a drug, but in this particular case there was no arsenic present, and therefore it was not a drug. On appeal Mr. Justice Hawkins held that the soap was not a drug, and Mr. Justice Wright that it was a compounded drug within Section 6 of the Act. One defendant supplied saffron to a customer who asked for saffron, and we are not surprised that it was held that he supplied an article not of the nature and substance demanded, "though the saffron was in its natural condition." A number of cases have been necessary to make it clear what is meant by the term "seller," and chemists' assistants should be interested in knowing that Lord Chief Justice Coleridge, in 1891, said, "In my opinion a person who takes the article in his hand and performs the physical act of transferring the adulterated thing to the purchaser is a person who sells within this section." Both master and servant are liable, even though the fact that the article was adulterated was known to neither of them. The seventh and eighth sections—dealing with

the compounded article of food or drug, and the notice which the seller of mixed articles must give—have produced quite a crop of cases. The chief bone of contention has been as to what constitutes a sufficient notice to the purchaser, and the Courts left this in such a precarious position that the Act of last year dealt with it so far as the prominence is concerned, but still left it doubtful whether sellers should call purchasers' attention to mixture-notices. In our opinion the only safe course is to specifically call the attention of each customer to any notice in accordance with Section 8 of the 1875 Act.

Mr. Hedderwick cites an important case in which the Judges quashed a conviction by magistrates who refused to hear evidence to show that the assistant had acted contrary to express instructions, or rather had made a mistake. Mr. Justice Cave said then that "there is nothing in the Act which makes a master liable for acts done by a servant contrary to orders and which the master never authorised," while Mr. Justice Charles said, "There is nothing in the Act to alter what is a general rule of the criminal law as to liability for acts done by a servant, and it may be shown that the acts done were not done under the instructions or for the benefit of the master, but were done in disobedience of the orders given by the master."

The analyst who certifies in regard to the quality of food and drugs is almost in as precarious a position as the seller of the article. He must be as careful not to say too much as too little if he does not wish to invalidate his certificate. A case is quoted in the book which proves that though the certificate is *prima facie*, that is sufficient, evidence it is not necessarily conclusive. A man was summoned for selling faulty milk. The defendant gave evidence which conclusively showed that the milk was the pure natural milk of a particular cow. One of the Justices formerly owned the cow, and was acquainted with her peculiarities, and he and his brother Justices dismissed the summons, although the analysis was not disputed. Upon appeal it was contended that the Justices were bound to act on the certificate, seeing that it was not disputed, but the Judges held that the Magistrates were entitled to look at the whole evidence, and had acted rightly in so doing.

The advice which Mr. Hedderwick extracts from the law and the Judges in respect to warranty is not of an enlightening nature. Under the 1875 Act there have been decisions to the following effect:—

1. A written contract to supply an article *de die in diem* not a warranty of any specific quantity of the article so supplied.
2. Contract coupled with labels attached to articles is a warranty, but this is subject to qualifications.
3. An invoice alone is not a warranty, but with contract it is.
4. The words "warranted pure" on a bladder of lard or parcel of anything unnamed are not a warranty.
5. Invoice with a label is a warranty, if descriptions on both are exactly the same, and a guarantee.

As to the new Act Mr. Hedderwick says: "An invoice may now be a defence, but something more than a mere description would still be required to constitute an invoice a defence within the meaning of the new enactment: *something identifying the article and specifying its quality*." The words which we have italicised are the important part for buyers to keep in mind. They are about the most positive statement made by Mr. Hedderwick. We should have been pleased if he had worked some more of his own views into the book—it would be more convincing reading. Nevertheless, it will be found a valuable reference-work by those who, as controllers of large businesses or otherwise, require to be familiar with the letter of the law and the decisions thereupon by the courts. The information is set forth clearly, and it is easy to refer to particular cases.

From the Sunny South.

CONSUL EDWARD NEVILLE-ROLFE is prompt in forwarding his annual report on the trade of Southern Italy, and we gather from it that 1899 was to Italy a prosperous year commercially, although there was no period of the year when prosperity advanced by leaps and bounds. Mr. Rolfe in his report draws particular attention to the results accruing to Italy from the renewal of commercial transactions with France on the favourable basis of the new treaty which came into operation in the early part of the year. Great things were expected in Italy by this renewal, and if the present rate of increase is kept up they will be realised, it appears. France has granted Italy the most-favoured-nation clause, and Italy has reciprocated. At present the returns of French trade under the treaty only deal with five months (February to June, 1899, inclusive), but during this time alone 4,180 kilos. of essential oils and essences was imported to Italy, as against an average of 2,814 kilos. in the preceding four years. Of chemicals there was 33,278 quintals imported, as against 24,315 quintals, the average for 1895-98. Amongst chemicals we find acids, 7,411 quintals; potash and soda, 5,496; oxides, 928; sulphates, 17,225; and dyes, 5,218. We should have had a better conception of this trade with France if the value had been given instead of the weight. As regards exports of chemical products to France, two only are mentioned—viz., 1,518 quintals of boric acid, against *nil* in the quadrennial average, and 7,404 quintals of tartars, as against 2,702. Other exports to France were 40,805 quintals of essence of orange, against 32,724 quintals, and olive oil 63,315 quintals, against 71,682. It will be remembered that the olive-oil crop was a total failure in the provinces of Southern Italy last year, and the resulting distress has been so severe that the Government has been compelled to remit the land-tax in many districts. As we reported on a previous occasion, the cause of the disaster was the olive-fly, the larvæ of which eat up the pulp of the fruit, leaving only the skin and the stone. Mr. Rolfe reports that the Government and the provinces offer 2,400*l.* to anyone who can find a remedy. Scientific men are busily engaged in Italy on this problem (so far without avail), and it is suggested that foreign scientists might be called in to assist them. The failure of the crop has not, however, extended to the whole of Italy, for the exports of oil from Gallipoli (one of the principal ports) last year were the largest of the last five years, excepting 1897, the figures being as follows:—

	1899	1898	1897	1896	1895
Imp. tons ...	4,198	2,042	4,380	3,401	3,323

Great Britain's share of this trade was 1,011 Imp. tons, against 512 tons in 1898. Russia bought the enormous quantity of 1,791 tons, against 924 tons. The stocks at Gallipoli are reported to be lower now than they have been for many years past, and some 500 tons are unfit for export, leaving 1,500 tons only suitable for the foreign markets and British trade. The outlook for the next crop is discouraging, as the plants now show great want of vigour, traceable to the absence of seasonable cold required to kill off the noxious insects which prey on the olive. Since the report was sent the required cold weather has probably arrived. It is difficult, however, to form a trustworthy opinion as to the future outlook, as the olive-culture extends over a large and increasing area, and there are many other elements to be considered in these days of rapid communication. Moreover, we are no longer so dependent upon olive oil as we were twenty years ago, and this is a factor in the consumptive demand which cannot be overlooked.

THE ATTACK ON THE TRADE.

We are not yet able to report material progress with the Companies Bill; but we wish to impress upon all who have a parliamentary vote that the Government are attacking the principle which their predecessors in 1838 decided should be the controlling factor of the drug-trade—viz., the qualification of the individual who keeps an open drug-shop or pharmacy. The silence of the Pharmaceutical Society, and the ineptitude of the Federation of Pharmaceutical Associations to meet this attack, should be taken as a stimulus to effort on the part of every retail chemist. It is in the power of each man to do more than societies can do at the present moment. Everyone can write to his local member of Parliament, calling attention to the injustice which the Government proposes to do to those who have conformed to the pharmacy law by qualifying themselves according thereto. The Government proposes to legalise evasion of the law, the assumption of Pharmacy Act titles being that and nothing else. At present these titles are not used by companies so generally as to justify the Legislature to give heed to specious arguments about vested rights, and the principle of the physician-surgeon-dentist-midwife clause suffices to indicate to members of Parliament that educational qualification is recognised by the Government, and that this principle should be extended to pharmacy. There is need for the drug-trade to regard this matter as urgent; and, however opinions may vary respecting the other aspects of the question, there is unanimity in respect to reservation of titles, and it will be excellent business to write to members strongly upon that, as well as upon the insufficiency of the one-man manager principle of the Bill.

THE GOVERNMENT AND PHARMACY.

We regret to say that the Government as represented by the Board of Trade is not disposed at present to modify the clause which stands in the Companies Bill. It will require all the wisdom which the President of the Pharmaceutical Society can bring to bear upon the matter to move the President of the Board of Trade from the narrow groove in which he finds himself, owing to the advice of his law officers. Mr. Ritchie is a man of business, one of the practical men of the Government, but in this matter he is not well-informed. He has apparently been influenced by the wire-pulling of company representatives, who have taken care to be early in the field, and who have anticipated the case of our pharmaceutical representatives. It is desirable, therefore, that the rank-and-file of Parliament should feel the pulse of their constituents, so that they may approach those in office and say, "You shall not do this thing. It is a matter for fuller consideration." "X-rayser" admirably exposes this week the constructive weaknesses of the pharmacy-clause in the Bill, and were there no higher principles than his criticism of drafting to be considered, these are still sufficient to warrant every man in the drug-trade using all his influence as a citizen to secure amendment of the clause.

THE COUNCIL ON THE FENCE.

Mr. Rymer Young pleads that the Pharmaceutical Council finds it difficult to reconcile divergent opinion on the company question. It cannot make up its composite mind as to whether a qualified directorate, or a qualified manager, or pharmaceutical unity is the best policy, so it sits on the fence. A doleful condition truly, especially for a body of representative men who should know that any reasonable lead which they would take in this matter would be welcomed by the trade. Mr. Young made one mistake in his Blackburn speech: he asserts that the Council has difficulty in reconciling different views. This is too pretty a complexion to put on the matter, seeing that the proceedings at this year's Council-meetings clearly prove that the members have not tried. The fact is that the majority of the

Council, especially provincial members, have not the grit to assert themselves. The hero of a thousand battles (and precious few victories), with one or two others who want nothing to be done on this company question, have, by their tactics, brought about a deadlock. The majority tamely acquiesce, and try to convince us that the difficulties are prodigious. We need something better than that to persuade us that the Council is in earnest.

A MINOR RUBAIYAT.

Wake! lest the Dracded Portal soon you'll see
For ever closed on slim five-guinea Fee;
Nor waste in useless wailings precious Time,
But grind, that haply ploughed you may not be.
Grind! till the dawuig dim and grey is near;
Grind! till the sombre twilight disappear;
Work till you know not whether Here is There,
Or There is vanished, leaving nothing Here.
Take heart by reading of the Minor Rout;
Scan well the Pass Percentage, working out
Thy chances; then again thy soul prepare
For deadly conflict with the Chukerout.
A book of Attfield, bandage round thy brow,
A row of test-tubes, Florence flasks—and Thou
Beside them, cussing in bewilderment.
Ah! visions such as those have passed ere now.
Each day a thousand problems brings, you say,
But where has gone the Cram of yesterday?
And when the grim Inquisitor doth probe,
The knowledge of To-morrow flies away.
They say that Others now the treasures keep,
In regions where the Faithful nod and sleep,
But traitors wildly cry, "Divide, divide,"
And harbour schemes to make the Ancients weep.
And those who husbanded the golden Dust,
And left the legal rights of craft to rust,
Communed together, saying, "We have Much,
But More we need, and double it we Must."
* * * * *
Sweet hope! perchance their Moon is on the wane,
And, Wrong once banished, Right will come again,
And weary Minors, fetters bursting free,
Will cry for justice—and cry not in vain.
And when, like some, the Ordeal thou dost pass,
Let not beneath thy feet grow long the Grass,
Until thou sendest with thy might to Pot
The piping Piffles, to whom life is—Gas.

AN OLD SAW.

The Vice-President of the Pharmaceutical Society gave the members of that body a timely hint at Blackburn last week. He said the Council of the Society is what the members make it. The majority of the members may not be aware that the process of compounding is now proceeding, for seven of the old members have been balloted out, and it behoves the members before March 26 to nominate others to take their places. Now is the time for those of the drug-trade of Great Britain who are connected with the Society to endeavour to make the Council what they would like it to be. A member may nominate as many of his fellow-members as he pleases. The task is a light one, but it is a weighty business taking it all in all. There is need for making the Pharmaceutical Council representative of the trade, need for sending to Bloomsbury Square men who are earnest in effort to make the organisation of the Pharmaceutical Society beneficial to all the interests of retail pharmacy. There is somewhat too much of the traditional instinct in the Council at present, and we want more men in it who, while reverencing the past, are prepared to exercise all their influence to utilise the resources of the Society for the benefit of those who are endeavouring to make their living on the strength of the certificates which the Society has granted to them. Seven men are wanted. Whether all the new men who are nominated, and who accept, will be chosen is a matter for the poll to settle; but let new men be nominated.

WHY HAVE EXAMINATIONS?

A correspondent to the *Harrogate Advertiser* contributes an obviously inspired lay view to the qualified-chemist question. The writer considers that it is very arbitrary for the law to make pharmaceutical examinations compulsory. All the "previous chemists" (by which we suppose he means chemists in business before the passing of the Pharmacy Act) used to get on very well without an official examination, and some of those in business at the present day are as capable as "qualified" chemists of attending to the wants of the public. In fact, a fully-qualified Major man informed him that it was absolutely unnecessary and ridiculous to have to pass any examination, and he (the Major man) had forgotten all he learnt, but that did not signify, as chemists had their "B.P.'s" and other books of instruction, which were always referred to when requisite. The whole affair, he informs the public, is merely a sinister design to keep as many out of the trade as possible. This public eye-opener has been more or less carefully coached, for he mentions that he has been informed "by more than one person" that "ploughed" men are dismissed from the examination-room before the close of the day's proceedings—a particularly humiliating experience for the unfortunate candidate. The hardships arising from the doubling of the examination-fees in the near future are also commented upon, and the opinion is expressed that if there must be a legal examination it should be with regard to poisons only. But the tit-bit of the contribution is reserved for the peroration, which is as follows:—

Just before concluding, to show that the queries in examinations are only given to make it difficult for one to become a chemist, and also to gain money, one of them, and there are many such, is how to make *infusum rosæ aëdum*, a perfectly harmless preparation, which it is not necessary for anyone to have to learn, as one would have the books that would contain all such information! Therefore such a tax on the memory as having to learn by rote the contents of entire works is simply an unjustifiable and useless burden placed upon one, and the sooner that it is put a stop to for the sake of the liberty of the subject the better.

A few more arguments of this sort and the supremacy of Bloomsbury will totter to its fall.

Trade-Marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost 1*l.*, obtainable through any money-order office.

(From the "Trade Marks Journal," February 7, 1900.)

PETERGENE (no claim for "Deterge"); for all goods in Class 2. By Major & Co. (Limited), 447 Windmill Lane, Hull. 226,084.

SUCRAMINE; for chemical substances. By Leon Cerf, 58 Rue de la République, Lyons. 227,860, 227,861.

Corco; for soaps. By N. R. Fairbank Company, 277 Dearborn Street, Chicago. 228,153, 228,155.

GUGASANOL; for chemical substances. By Meister Lucius and Brüning, Hoechst a/Main, Germany. 226,729.

KADI and name of originator, &c. (the essential particular is the word "Kadi"); for medicine. By the Dastoor Specific Company, Esplanade Road, Fort, Bombay. 227,452.

TIKLA; for an aerated beverage. By Stevenson & Howell (Limited), 950a Southwark Street, S.E. 227,748.

(From the "Trade Marks Journal," February 14, 1900.)

TORO; for chemical substances. By H. Mack, 31 Kohlgrasse, Ulm a/D, Germany. 226,668.

PURIFTS; for disinfectant powder. By J. Smith, 40 Durham Road, Manor Park, Essex. 228,101.

Camphorated Oil.

A Polarimetric Method for the Determination of the Camphor-content.

By EDWIN DOWZARD, F.C.S.

THE recent prosecutions for deficiency of camphor in camphorated oil have rendered it necessary for those who make this preparation in quantity to determine the percentage of camphor before placing in stock.

The method commonly used consists in heating a weighed quantity until all odour of camphor has disappeared, the loss in weight being taken as camphor. This process requires several hours for its completion, and gives high results, because olive oil when heated to 105° C. for two hours (at this temperature it requires about two hours to drive off the camphor from 2 grammes of oil) loses about 0.30 per cent. in weight.

The following method will be found to give fairly reliable results, and to be quite accurate enough for checking-purposes. Of course the rotation of camphor is sure to vary, but, so far as my experience goes, the variation does not seriously affect the results.

The optical rotation of the sample under examination is taken at about 15° C. in a 100-mm. tube (using an instrument of the Laurent half-shadow type); the result is then multiplied by 1.962, which gives the percentage of camphor by weight.

In the following table the percentages of camphor found by the gravimetric method and the corresponding rotations are recorded. The multiplier 1.962 has been arrived at by dividing the percentage of camphor by the rotation, and taking the mean of all results so obtained. A correction of 0.30 per cent. (= loss on heating olive oil to 105° C.) has been subtracted from all results obtained by the gravimetric process. The percentage of camphor in camphorated oil = 21.44 per cent. (taking the sp. gr. of olive oil as 0.916):—

Gravimetric Method	Optical Rotation	Percentage of Camphor divided by Rotation
21.45 per cent.	... + 11.00°	... 1.950
21.42 per cent.	... + 10.93°	... 1.959
21.55 per cent.	... + 10.97°	... 1.964
21.45 per cent.	... + 10.83°	... 1.980
21.40 per cent.	... + 10.97°	... 1.950
21.32 per cent.	... + 10.90°	... 1.956
21.32 per cent.	... + 10.80°	... 1.974
		average 1.962

In the next table the percentages obtained by both methods are given:—

Gravimetric Method	Polarimetric Method
21.45 per cent.	21.58 per cent. = 11.00 × 1.962
21.42 per cent.	21.44 per cent. = 10.93 × 1.962
21.55 per cent.	21.52 per cent. = 10.97 × 1.962
21.45 per cent.	21.24 per cent. = 10.83 × 1.962
21.40 per cent.	21.52 per cent. = 10.97 × 1.962
21.32 per cent.	21.38 per cent. = 10.90 × 1.962
21.32 per cent.	21.20 per cent. = 10.80 × 1.962
16.20 per cent.	16.28 per cent. = 8.30 × 1.962

These results confirm those obtained by J. F. Liverseege (see *C. & D.*, January 28, 1899, page 154). As his results are given in grammes per 100 c.c., and mine in grammes per 100 grammes, there is an apparent difference, which, however, does not exist when his figures are calculated to grammes per 100 grammes.

The following tables illustrate this:—

	Sp. gr.	Rot.	Camphor 200 m.m. w/v	Camphor Grammes per 100 grammes
1) Camphor 19.8 w/v	0.927	22.0°	20.0	$\frac{100 \times 20}{92.7} = 21.57$
2) Camphor 14.9 w/v	0.922	16.1°	14.6	$\frac{100 \times 14.6}{92.2} = 15.83$
3) Camphor 9.9 w/v	0.922	11.0°	10.0	$\frac{100 \times 10}{92.2} = 10.80$

The rotations obtained by Liverseege must, of course, be divided by 2 before multiplying by 1.962:—

	Liverseege	Dowzard
1) Camphor	21.57 per cent.	21.45 per cent.
2) Camphor	15.83 per cent.	15.79 per cent.
3) Camphor	10.80 per cent.	10.79 per cent.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

THE fourth evening meeting of the Session was held at 36 York Place, Edinburgh, on February 21, Mr. Peter Boa in the chair. The attendance was good, and after a few preliminary remarks the CHAIRMAN called up Dr. LEONARD DOBBIN to read his paper on

DETECTION OF SULPHATES IN PRESENCE OF THIOSULPHATES.

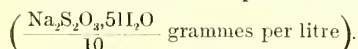
In the determination of sulphuric acid by precipitation and weighing as barium sulphate, it is well known that accurate results cannot be obtained in presence of any considerable quantity of certain salts, on account of the influence which the latter exert in preventing the complete precipitation of the barium sulphate. Nitrates, in particular, are known to produce this effect, and for this reason hydrochloric acid is employed in preference to nitric acid to acidulate the solution to be precipitated, and the precipitation is effected by the addition of barium chloride rather than of barium nitrate.

The striking effect of the presence of thiosulphates in likewise interfering with the precipitation of barium sulphate is not by any means so well known, and, so far as I have been able to ascertain, it is not referred to in any of the standard text-books of qualitative or quantitative analysis.

In the ordinary qualitative examination for sulphate and sulphite, or either of them, in the known presence of thiosulphate, it is customary to add barium chloride to the dilute neutral solution, to filter off any precipitate that may be formed, and to examine the latter, after thorough washing, for sulphate and sulphite. The filtrate and washings contain the thiosulphate. This method, even when carried out with care, may entirely fail to reveal the presence of sulphate when the latter is only present in small quantity along with a moderate quantity of thiosulphate; because, if the thiosulphate preponderate sufficiently, there will not be any barium sulphate precipitated even after the lapse of a considerable time.

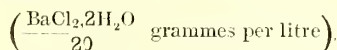
In order to illustrate clearly the risk of error that exists in such a case, the following solutions may be employed:—

A. "Decinormal" sodium-thiosulphate solution



B. Sodium-sulphate solution of the same sodium concentration as solution A $\left(\frac{\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}}{10} \text{ grammes per litre} \right).$

C. Decinormal barium-chloride solution



Experiment I.

(a) 100 c.c. of A and 4 c.c. of B are mixed in a beaker.

(b) 100 c.c. of water and 4 c.c. of B are mixed in another beaker.

(c) 1 c.c. of C is then added to the contents of each beaker.

A precipitate of barium sulphate is immediately produced in the solution which contains sulphate alone. In the solution containing thiosulphate and sulphate there is no precipitate, even on standing for some time, although the quantity of sulphate approximates to 4 per cent. of the total salts present. After prolonged standing partial precipitation does take place in this solution also.

The solubility of barium sulphate in dilute nitric acid is also remarkably increased by the presence of a moderate quantity of dissolved thiosulphate. To illustrate this, the standard solutions already described may be employed.

Experiment II.

(a) 10 c.c. of A, 10 c.c. of water, and 1 c.c. of B are mixed in a beaker.

(b) 20 c.c. of water, and 1 c.c. of B are mixed in another beaker. (Each beaker thus contains the same quantity of sulphate in the same volume of solution.)

(c) A small quantity of C is added to the contents of each beaker, and a precipitate is quickly formed in each. Then 20-30 c.c. of dilute nitric acid (20 per cent.) is added to each, when the precipitate in the beaker containing the thiosulphate slowly but completely dissolves. There is not any perceptible diminution in the quantity of the precipitate in the other beaker. At the temperature at which this experiment was tried (10° C.), the interval between the addition of the nitric acid and the first appearance of a precipitate of sulphur, due to the decomposition of the thiosulphate, was at least two minutes; and the barium-sulphate precipitate had entirely disappeared some time before any sulphur was precipitated. It is possible that at a somewhat higher temperature the experiment may not succeed without further dilution to retard the decomposition of the thiosulphate.

I have only been able to find two references to the interference of dissolved thiosulphate with the precipitation of barium sulphate. One is in a paper by Fresenius,* in which the effect of a strong solution (25 per cent.) of sodium thiosulphate is mentioned as preventing its precipitation, and as thereby explaining certain discrepancies observed in a quantitative separation of baryta from lime, which is there under review. Fresenius does not refer there (nor elsewhere, so far as I have been able to ascertain) to the bearing of the matter upon qualitative analysis, nor does he enlarge upon it in any way. The other reference occurs in a paper by Salzer† upon the determination of iodine; and there, also, no remark is made about the bearing upon qualitative analysis.

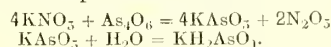
The detection of a small quantity of sulphate in presence of much thiosulphate nevertheless presents considerable difficulty. One method would be to convert all the thiosulphate into tetrathionate by adding an excess of a solution of iodine in potassium iodide (which must be free from traces of sulphates), and then to add barium chloride (Salzer). But the detection of sulphate could probably be best accomplished by employing the method devised by Grossmann‡ for quantitatively determining sulphate in presence of sulphite and thiosulphate. In this method the solution is placed in a suitably-fitted flask, the air is displaced by means of carbonic anhydride, and the liquid heated. Excess of hydrochloric acid is added, and the liquid is boiled down to one-fourth of its original volume, a current of carbonic anhydride being passed into the flask all the time. The whole of the sulphurous anhydride set free is carried off by the escaping carbonic anhydride and water-vapour. The liquid remaining in the flask is filtered from the separated sulphur, and the sulphate remains in the filtrate, where it can be detected and, if desired, quantitatively determined.

Some remarks having been made by Mr. LOTHIAN and Mr. COWIE, Dr. DOBBIN said Fresenius in his paper referred to was dealing with a suggested process for separating calcium sulphate from barium sulphate, founded on the assumption that this sulphate would dissolve the former but not the latter. He used a concentrated solution and found that barium sulphate did dissolve, and that the assumption was not justified. Nitric acid oxidised the sulphate only to a small extent in a cold dilute solution.

Mr. JOHN LOTHIAN read his paper on

POTASSIUM ARSENATE.

He said of the three potassium salts of ortho-arsenic acid, K_2AsO_4 , K_2HAsO_4 , KH_2AsO_4 , the latter, or monopotassium arsenate, is the only stable one. It is most readily prepared by fusing a mixture of equal parts of dry potassium nitrate and arsenious anhydride at a low red heat in a porcelain crucible, and when cold dissolving the fused matter in water, evaporating, and setting aside to crystallise. The reaction may be represented by the following equations, potassium metarsenate being formed which, on solution, is converted into monopotassium arsenate:—



The crystals (dimetric octohedra) are anhydrous and perma-

* *Zeit. Analyt. Chem.* 30 (1891), 469.

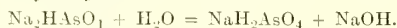
† *Ibid.* 31 (1892), 377.

‡ *Ibid.* 18 (1879), 80.

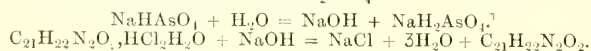
nent in air, have an acid reaction, are soluble in about 5 parts of water, but almost insoluble in 90-per-cent. alcohol. They contain 63.8 per cent. As_2O_3 . Two samples examined were found to come up to the theoretical requirements. In preparing monopotassium arsenate from arsenic acid Mr. Lothian noted that when arsenic acid is neutralised by potassium bicarbonate the salt K_2HAsO_4 exists in solution. On evaporation, however, crystals of KH_2AsO_4 are deposited, and as the crystallisation proceeds the mother-liquor becomes very alkaline. If the mother-liquor is now neutralised with more arsenic acid, a fresh crop of KH_2AsO_4 crystals is obtained, and the mother-liquor again becomes alkaline. This is explained by the hydrolysis of the K_2HAsO_4 in solution—



On evaporation the equilibrium is upset by the greater stability of the dissociated molecule KH_2AsO_4 (the salt K_2HAsO_4 does not crystallise), which, although an acid salt, crystallises out in the presence of the alkali. Similarly, when arsenic acid is neutralised by sodium bicarbonate, the salt Na_2HAsO_4 is formed, and may also be assumed to exist in solution hydrolysed—



On evaporation, however, the salt $\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$ or $12\text{H}_2\text{O}$ continues to crystallise out, a reassociation of the dissociated molecules taking place, owing to the greater stability of the salt Na_2HAsO_4 . He considered that the hydrolysis of the sodium arsenate is the correct explanation of the deposition of the strychnine in the liq. sodii arsen. and liq. strychninae hydrochlor. prescription discussed at the two previous meetings. In this case the equilibrium is upset in the opposite direction, the dissociated NaOH being neutralised by the hydrochloric acid of the strychnine hydrochloride, strychnine deposited, and the salt NaH_2AsO_4 left in solution. This Mr. Lothian proved by mixing solutions of strychnine hydrochloride and sodium arsenate containing these salts in molecular proportions—that is, in the proportion of 403.7 parts of strychnine hydrochloride to 184.7 parts of anhydrous sodium arsenate. The strychnine, which was very rapidly deposited, was removed from solution by filtration and repeated agitation with chloroform. The solution, on examination, was now found to be acid in reaction and to contain the salts NaCl and NaH_2AsO_4 —



Dr. DOBBIN said he could not lock on the practical side, but it appealed to him very strongly from its historical aspect. This salt was one of prominent historical interest, because it was one carefully examined by Mitscherlich in his investigations which led him to propound his theory as to isomorphous salts. It was also one of the salts which, re-examined with great care from another point of view by Graham in his wholly original investigations, led to the discovery of the monobasic, dibasic, and tribasic acids. These were both of the nature of turning-points in chemical theory.

Mr. DUNCAN said his results were different from those of Mr. Lothian, and he seemed to have had a different arsenate. He thought this salt should certainly replace the official sodium arsenate if there was any necessity for having an arsenate in the Pharmacopœia.

Mr. D. MACEWAN corroborated what Mr. Lothian said about the stability of the salt. He had a specimen at least twenty years old.

Mr. HILL said the paper represented a larger amount of careful work than appeared, and gave information which would be readily available for those practically interested in it in the face of the meagre details in British chemical literature.

Mr. LOTHIAN, in reply, said it was extraordinary that a salt so well investigated scientifically should be so much ignored in pharmaceutical literature.

The next paper read was on

STRYCHNINE HYDROCHLORIDE AND POTASSIUM ARSENATE.

Mr. J. RUTHERFORD HILL in this paper gave further results of his working at this subject, particularly with reference to the salt KH_2AsO_4 regarding which, he said, information was very meagre. Mr. Lothian drew his attention to the fact that the commercial salt was the dihydro-

gen-potassium arsenate. Reasoning from the results obtained with sodium arsenate, and the equation showing the result of interaction between it and strychnine hydrochloride in aqueous solution, and observing that potassium arsenate gave an acid solution with water, it occurred to him that it would not cause precipitation of strychnine from liq. strychnin. hydrochlor. When proceeding to dry the salt in order to make a 1-per-cent. solution he observed very faint evidence of any water of crystallisation. 3.805 grammes of powdered crystals, heated for an hour to near 300°C ., cooled in a desiccator, and weighed, had lost 0.399 gramme, equal to 10.5 per cent., showing reduction to metarsenate KAsO_3 , which requires a difference of 10 per cent.; and this confirms Mr. Lothian's result. Half an ounce of liq. potassii arsenatis (1 per cent.) was mixed with $\frac{1}{2}$ oz. liq. strychn. hydrochlor. A similar mixture was made substituting a 1-per-cent. aqueous solution of strychnine hydrochloride for the official liquor containing alcohol. In both cases the solutions were perfectly clear, and remained so for more than a week. There was not the slightest indication of any precipitate. On washing out the mixture with chloroform it was found that in the case of the purely aqueous mixture 0.3 gr., and in the case of the mixture containing alcohol 0.34 gr., had been dissolved out, using about four separate fluid drachms of chloroform in each case. This was a surprise, as theoretically it seemed as if no alkaloid should have been washed out. It was found that by washing out $\frac{1}{2}$ oz. of aqueous liq. strychn. hydrochlor. with a similar quantity of chloroform, 0.38 gr. was dissolved. This residue was neutral to litmus, soluble in water, gave the reactions for strychnine hydrochloride, and, as was shown by a later experiment, was due to the solubility of strychnine hydrochloride in chloroform. The residue from the mixed solutions of strychnine hydrochloride and potassium arsenate—which, it would be noted, was smaller in quantity—consisted of free alkaloid with a trace of arsenate, indicating that the solution probably contained strychnine arsenate, and that the free alkaloid was obtained by slight decomposition of the arsenate by the chloroform, as indicated in a later experiment. It would be seen from this that the dispensing difficulty dealt with in Mr. Dunlop's note was entirely obviated by using a solution of potassium arsenate instead of sodium arsenate. It was curious that the former salt appeared to have received so little attention in this country. It was used in homeopathic medicine under the name of kali met. He suggested that it should be inserted in the Pharmacopœia instead of sodium arsenate. It possessed several advantages. It was always anhydrous, was very stable, and its acid-aqueous solution had a much wider range of compatibility than the solution of the sodium salt. It contained 41.6 per cent. of arsenium, as compared with 40.23 per cent. in the anhydrous sodium salt. The author further suggested that it might be used in making Fowler's solution, and referred to the danger of dispensing liq. arsen. hydrochlor. and liq. sodii arsen. unmixed, as they are colourless, and suggested 5 dr. of tr. cocci to the pint, with oil of lavender, 45 minims, and oil of rosemary, 5 minims, or 5 minims of 1-per-cent. solution of fuchsine. After referring to the toxicity of the various arseniates, and showing that the arsenic in the "ous" condition is about twice as active as in the "ic" condition, Mr. Hill concluded his note with the following characters and tests for potassium arsenate:—

In colourless dimetric octohedral crystals, anhydrous, permanent in air, soluble in five parts of water, and yielding an acid solution, almost insoluble in alcohol (90-per-cent.). A solution of 1 gramme of potassium arsenate, with 1 of glacial acetic acid in 50 c.c. of water, should require 2.10 grammes of lead acetate for complete precipitation. The powdered crystals should not lose weight more than about 0.1 per cent. when heated to 300°F . (148.9°C .) (limit of interstitial moisture). The other characters similar to those applying to sodium arsenate.

STRYCHNINE SALTS AND CHLOROFORM.

Following up the previous note Mr. Hill described some experiments on the action of chloroform on various salts of strychnine. These we may briefly summarise from the details given by the author:—

From the liq. strychn. hydrochlor. B.P. chloroform washed out equal to 1 in 868 of anhydrous strychnine hydrochloride. The amount increased as the acid content of the liquor was increased—e.g., 1 in 460 when 10 minims ac. hydrochlor. dil. was added to $\frac{1}{2}$ oz. of liquor, 1 in 220 when 2 dr. added.

The solubility of the dry salt in chloroform is 1 in 169. The alcohol in official chloroform does not account for the solubility.

Strychnine arsenate is soluble in chloroform to the extent of 1 in 1,178, but the salt is decomposed in the process.

From aqueous solution of strychnine sulphate chloroform dissolves the salt in the proportion of 1 in 1,055, and of acid sulphate, 1 in 2,846.

The bearing of the foregoing on a very common method of analysis in dealing with alkaloids such as strychnine is obvious. That method is based on the dictum that, while the alkaloid strychnine is freely soluble in chloroform, its salts are insoluble. It will be well to bear in mind that the dictum is only true to a limited extent, and, so far as these notes show, applies strictly only to the sulphate when a distinct excess of sulphuric acid is present.

Mr. DUNCAN thought a simple solution of arsenate was all that was required in the Pharmacopœia. He strongly objected to the use of magenta dye for colouring galenical preparations.

Mr. ROWLAND said he found this salt was only used by faddists. They did not need an arsenate at all.

Mr. LUNAN said his experience was that some prescribers preferred the arsenous variety to arsenic, because the latter was not found so effectual. Potassium arsenite might be examined before deciding on the arsenate; the advantage of prescribing potassium arsenate instead of the sodium salt was that it would save much trouble, and it was a salt absolutely definite in its constitution.

Mr. COWIE so far agreed to the substitution, but thought it too sweeping a suggestion to adopt it in place of the other official arsenical solutions. The speaker suggested the enforcement of a better chemical knowledge in the medical curriculum.

The CHAIRMAN said he was not in sympathy with Mr. Hill's suggestion to substitute the potassium arsenate for the official alkaline and acid solutions, which appeared to him to meet the requirements. Too much importance should not be attached to isolated cases of prescribers badly equipped with chemical information.

Mr. HILL, having replied, proceeded to read a note on

MESCAL BUTTON.

In this note Mr. HILL described the fruit of *Anhalonium Lewinii*, and exhibited a living plant from Mr. E. M. Holmes's Sevenoaks gardens. The plants are grown by Mr. Holmes in limestone rubble and sand, and the pot placed in a larger pot with a layer of sphagnum between. In summer the sphagnum is kept wet, but in winter quite dry. The largest specimens are about 2½ inches across and 1 inch high. There are from ten to twelve rays, dividing transversely into six verrucæ. The centre of each areola or verruca has a tuft of hair in the centre. The tufts are crowded in the centre where the areolæ are smaller. The flowers are produced in August on the summit, and are pink, and about ½ inch long. The expanded flower is about the size of a threepenny-piece, and a fine one sometimes as large as a sixpenny-piece, like a miniature cactus. The fruit is like a barberry in shape and of a pretty orange-pink colour. The seeds are small black cylindrical bodies about the size of black mustard-seed, and having the surface marked with raised lines. There seems very little real difference between *A. Lewinii* and *A. Williamsii*. The chief distinction seems the number of convex ribs, of which there are usually thirteen in the former and eight in the latter, but the number is not constant.

Votes of thanks were given to the authors of papers, and to the donors of the additions to the library and museum.

A NATIONAL ASSOCIATION of Pharmaceutical Colleges is the latest American idea. They seem to be aiming at a uniform qualification. Good!

SOAP FOR THE PHILIPPINES.—The French Consul at Manila states that the demand for soap in Manila and throughout the islands of the Archipelago is very large. The soaps used are imported chiefly from Spain, England, and China, but for some years past the manufacture of soap has been carried on in the Philippines with more or less success. Generally speaking, the quality is bad, but the buyers do not mind that so long as the prices are not too high.

New York Notes.

VERIFYING MEASURES.—The New York Section of the American Chemical Society are to co-operate with Washington in a movement for the establishment of a national standard bureau for the verification of thermometers and other measuring instruments made by American manufacturers.

NEW YORK POISONING-CASE.—The man Molineux, convicted of causing the death of Mrs. Adams by sending her poison by post, has been sentenced to be executed by electricity in Sing-Sing prison, during the week beginning March 26. Counsel for the prisoner has served notice of appeal, which will have the effect of staying the execution of the sentence.

THE "VICHY" TRADE-MARK.—The United States Circuit Court of Appeals has affirmed an opinion of the Circuit Court, which denied to the "Vichy" Company, as lessee, and the Republic of France, as principal, the right to enjoin makers of mineral waters from using the word "Vichy" as a name for their products. The appellants sought to establish trade-mark rights in the name, but the courts hold that anyone may use it.

THE N.A.R.D. PLAN WORKING.—The firm of Muswick & Co., of Louisville, have instituted a suit claiming \$50,000 damages against nineteen local wholesale and retail druggists. The complainants allege that the defendants conspired and refused to buy goods of travellers and manufacturers unless they signed a statement they would not sell to the plaintiff, and try to prevent them (Muswick & Co.) from purchasing drugs in the wholesale market, and have gone so far as to threaten and assert that they would not purchase of any wholesale house that had Muswick & Co. for a customer. The complainants state that they have repeatedly offered cash for drugs in the market but have been refused because the wholesale houses had promised other customers not to sell to cutters, and they also aver that certain local druggists secured the passage of resolutions by the Wholesale Druggists' Association last October, and by the N. A. R. D., at Cincinnati, to the effect that the aggressive cutters were to be driven out of the business if possible. Muswick & Co. allege that because of the "boycott" they have had to carry a stock worth \$10,000 more than they needed, on which the loss by breakage was \$5,000, and \$3,000 by interest.

SHORTER HOURS.—The contest which was carried on bitterly last winter against Mr. Maher's Bill to shorten the hours of labour of New York City drug-clerks and pharmacists has been renewed before the Committee on Labour and Industries of the Assembly. New York druggists have been struggling in a feeble kind of way for shorter hours ever since 1873, and nothing has been effected. A few stores open at 8 o'clock in the morning, and close at 11 P.M., others later, and some never close at all. A few Chicago druggists have taken to closing early on Sundays, and in Detroit 181 proprietors of drug-stores have signed a petition to close their stores at 9 P.M. Only fourteen of the total 193 in the city have refused, but we of the retail trade know from past experience that these fourteen will effectually stop the inauguration of the reasonable hours movement in Detroit. We know the man who will not close until he has sent his boy to see if his neighbour has shut up. Somehow druggists as a rule are mortally afraid of the other fellow, and, the feeling being mutual, they keep open until assured the rest of the people are safely tucked up in bed for the night. If druggists agreed to close at a reasonable hour, it would undoubtedly bring a better class of young men into the business. At present the bright young man turns his attention to positions that are more remunerative and less exacting. Nowadays it is the drug-store boy who gradually blossoms into the full-fledged graduate of pharmacy. The Preliminary Educational examination is not required by the City Board of Pharmacy, and probably not one in a hundred New York drug-clerks ever saw a Cæsar or heard of Virgil; but a knowledge of Latin is unnecessary, as the doctors are not given to writing much of it on their prescriptions—probably for a like reason.—*The Man from London.*

The Evening Meeting.

An Irresponsible Critic's Afterthoughts.

I LEFT the seedy Jones (that's my "head" and only assistant) on duty, and set forth to attend the evening meeting.

Mr. White's paper was one of the kind which is the outcome of a considerable amount of tedious work. Ah, yes! well do I know this sort of thing. I have only two letters of the alphabet after my name—the third and fourth—but I also research and analyse. So do we all, when we get the chance of doing an F.I.C. out of five guineas. And that reminds me that the representative of a doctors' Association remarked the other day that only qualified medical men could detect the constituents of urine. The medical men for the work are, of course, those on the staff of the D.A. in question. What with F.I.C.'s and D.A.'s, the C. and D. has a miserable analytical outlook.

As a proof that I am an analyst I may mention that I worked for years on a method for standardising mist. vini gallici—chemically and physiologically. People say to me, "Oh, that's nothing, how about—"; and then I invariably come down upon them with the crushing inquiry, "Far and Wide, you mean—yes, my dear sir, but have you tried my process?"

Mr. White, or, rather, Mr. Edmund White, B.Sc., delivered his masterly address in his usual masterly style. His masterly style, by the way, always makes one wonder whether he is thinking "the whole blooming thing is a nuisance, but suppose we'll have to get through it, don'tcherknow."

There were the usual formulæ and tables of figures on the blackboard, and some of the tables had to be torn down to make room for the formulæ. Talking of tables, I always use a stencil for mine. It works a bit more clearly than a broomstick.

The lecturer gave us much useful information, which I at once acted upon on reaching home.

"Jones," said I, "fetch up a Winchester of liquor ammon. fort., and we'll just tone up our sal volatile a bit. Chances are we shall be having that inspector round; and, by the way, remind me in the morning to 'phone up the cheap chemical houses—there's going to be an enormous demand for old waste ammon. carb.—I'm going to speculate."

The lecture over, the President inquired if anybody had any of the customary nasty remarks to make. Everybody wanted to let off the steam that had accumulated on shirt-cuffs and backs of old envelopes, but the President kept them waiting with an account of sal volatile since 1867. Then Mr. Umney assured us that they did things all right on the other side of the water—they commence with an excess of ammon. carb. to make quite sure of obtaining the B.P. strength.

Now, I am not a manufacturer (except of that soothing-powder of mine), but if I were I fancy I should try some fuel-saving idea about this sal volatile.

Mr. MacEwan thought the B.P. tests should be left as simple as possible. He did not approve of one involving the measurement of CO₂ over mercury, chiefly because the ordinary pharmacist (he explained that he did not mean the journalistic gentleman) has not the nitrometer, &c.

Here I was at one with him entirely. Who of us has time to fool about with mercury in a nitrometer?—much less to make elaborate corrections for changes in volumes of gases due to temperature and pressure and vapour-tension (whew! the tension of a mixture of essential oils in a gaseous condition!).

Mr. Wilson totally dissented from Mr. MacEwan. He preferred accurate and elaborate tests. It was not worth troubling about, as only about 1 per cent. of chemists took the trouble to test their chemicals.

At this my temperature rose.

I wanted to say: "Men, if such tests as these are introduced into the B.P., complicated tests, such as only representatives of public institutions and employés of large wholesale houses can conduct, then I say the one in a hundred will discontinue his testing. We require simple tests to keep our goods up to the mark, to safeguard our samples from the condemnation of the analyst, to avoid discredit by County

Court proceedings—we have our bread to—" and many other things I would have said.

Mr. Holmes then served the Museum dessert. It contained on this occasion, amongst other things, tea and aconite.

The President closed the proceedings with another slight discourse on prehistoric times.

And our homeward way we thoughtfully wended.

English Assistants on the Riviera.

TWO English assistants who have gone out to take up positions in French pharmacies during the Riviera season send us interesting letters. They are both at Cannes, and the extracts from their letters, which we print below, take a favourable view of the life of an English assistant whilst gaining experience in and learning the methods of his French confrère:—

Cannes, December 31, 1899.

It is very quiet here in Cannes, very little doing yet, although I have plenty of work making preparations for what we think will be wanted, so as to have everything ready for the rush when it comes. This pharmacy is a very fine place, fitted quite differently from any English one. There is no counter to stand behind and serve over, but a dispensing-counter and two prescription-desks, and a governor's desk, which is quite low, and is, in fact, a writing-table. The pharmacy is a very comfortable place to work in. There is a French assistant, a German comes next week, and another Englishman later. Then there is a man who does most of the dirty work, two messengers to deliver medicines on bicycles, and a woman who does the washing-up of bottles, measures, &c. The town is kept very clean, but there seem to be about eleven different odours in every street one goes through. The people here are afraid that the war will spoil their work, and, although they speak against the English, they are not above charging them an extra half-franc when they buy anything beyond the price they would charge a Frenchman. The country is very pretty. I went over to Juan les Pins the other morning on a bicycle; it is about five miles along the coast, and a beautiful ride. The hills on each side of the road are all worked out into terraces, and every bit of ground is cultivated with oranges, lemons, olives, and grapes, together with all kinds of flowers and plants which are grown for their essential oils. At one point of the road I came across the smell of lemon-peel, and about 150 yards further along I found a group of girls peeling lemons into long strips and hanging them over lines to dry in the sun. The girls do the work, and have to keep the peel turned so as to dry it evenly. Last week an English steamer came into port with coal from the Tyne, so I went on board and had a chat with the chief engineer and cured him, as well as one of the crew, of a bad cold."

Cannes, January 22, 1900.

The pharmacies here are equipped with all kinds of apparatus, and a pharmacien not only distils all his own aromatic waters and makes his own extracts, but undertakes all kinds of analyses. His three years' compulsory training at a recognised school of pharmacy no doubt fits him for the position, and, as a scientific man, he is far above the average English chemist, but he is not a good business man.

Strange to say, French drugs and chemicals are very much inferior in quality to English ones.

There are no company-pharmacies in France, as it is illegal for a pharmacien to have more than one shop; but there are the usual cutting-shops. The prices charged for dispensing in good-class English pharmacies here are higher than those obtained in the best West-end shops. Pharmacists carried on by Englishmen will soon be limited in number, as it is first necessary to pass the French Preliminary examination, then there is the apprenticeship, and the three years at a school of pharmacy, so that one would have to be entirely educated in France.

The usual hours in the South of France are from 8 A.M. to 9 P.M., with an hour and a half for lunch and the same for dinner, and as the time for dinner is often taken from 7.30 to 9, one has really finished at 7.30, and the hours are hardly so long as they appear to be. Nearly all the situations are outdoor ones, but sometimes a bedroom is found on the premises for the duty-man. The season lasts about six months, and for about two and a half months the work is very heavy, but this season is far below the average, owing to the Transvaal War. Splendid experience is to be obtained in dispensing. English and French prescriptions, of course, are in the majority, but German and Russian prescriptions are fairly common.

One or two seasons here I consider to be time well spent, as one picks up many wrinkles, to say nothing of the advantages to be gained by a knowledge of the language and pharmacy.

We hope, whilst the season is still on in the health-resorts of Southern France and the Italian Riviera, to give further experiences as they come to hand.

Legal Reports.

Pharmacy Act.

LABELLING PROPRIETARIES.

MESSRS. J. & J. THOMPSON (LIMITED), cash druggists, Oldham, were the defendants to a summons which was heard before Dr. Yates and other magistrates at the Oldham Police Court on Wednesday, February 21. They were summoned by Harry Moon, representing the Pharmaceutical Society of Great Britain, for having committed a breach of the Pharmacy Act by selling poison without the proper and requisite label being affixed to a bottle of chlorodyne. The Society was represented by Mr. Robson, solicitor, Manchester, and Thompson's (Limited) were represented by Mr. R. M. Sixsmith, solicitor, Oldham.

Mr. Robson, in opening the case for the prosecution, explained that the summons was brought under section 17. On January 26 defendants sold a bottle of Browne's chlorodyne, which contained chloroform and morphine, without putting on it their name and address, as required by the section. He appealed to the Bench for a substantial penalty, that would show those dispensing or selling medicines that they must carry out their duties in a very careful way.

Mr. Sixsmith said his clients did not deny the sale, but asked for proof of it. Their attention was not called to this matter at the time of the sale, and it would then have been an easy thing to have drawn the attention of the salesman to the fact that he had sold an unlabelled poison.

Evidence was then called.

Arthur Foulds, 22 Booth Street, Manchester, proved the purchase, and produced the bottle unopened, which bore neither the name and address of seller, nor was it marked "Poison." He also bought a bottle of glycerin at Thompson's shop which bore the seller's name.

Mr. Robson pointed out that the glycerin was bought in order to show that the witness had been in the shop.

Replying to Mr. Sixsmith, Foulds identified the man who sold him the goods as Mr. Watson, the manager of the shop. He did not know that Mr. Watson was a qualified chemist. He did not draw the attention of the manager to the sale because he had no instructions to do so. He did as he was ordered.

Mr. Sixsmith: I contend that there was an object in making this purchase.

Mr. Robson: Yes; the Pharmaceutical Society sent him there to purchase the medicine.

This closed the prosecution.

Mr. Sixsmith, for the defence, said that the summons was taken out at the instance of a Mr. Moon, who made no appearance in court. He might be the man in the moon for all he knew. If Mr. Moon had appeared he would have elicited the fact that this purchase was not an ordinary purchase, but was a purchase by a person who really came in the character of a detective. The prosecution was not taken out for the benefit of the public, but in order to benefit a certain number of gentlemen who had banded themselves together and called themselves the Pharmaceutical Society. He found no fault with that, excepting to say that it was not a prosecution for the public benefit. There had been some feeling for a long time between the Society and people in the same trade who were not members of the Society, and as a result prosecutions of this character had taken place all over the country, and it was culminating in a Bill being brought forward in Parliament to prohibit such firms as that of Thompsons (Limited) selling these medicines at all. In the interests of the public, Thompsons provided a qualified chemist at each of their shops, and in that way the public were reasonably looked after. There was also a system in the defendants' shop which had obtained for some time, and that was that these proprietary poisons were only allowed to be sold by the managers, who were qualified chemists. When the poisons were brought to the branch shops it was the duty of an assistant to properly affix the labels in accordance with the Act of Parliament, and it was evident that one bottle had been inadvertently missed or overlooked, which was the fault of the assistant. In proof of that two articles were

purchased at the same time, and one of them was properly labelled. He asked the Magistrates to deal leniently with this case. As soon as the prosecution proved the sale of the article, Thompsons were willing to admit the fault and pay all costs incurred by the Society. What could be fairer than that, if the Society only wanted the formality of a conviction? He again suggested that this prosecution was not in the interests of the public, but in the interests of the Society. He referred to the prosecution of Lewis's at Liverpool by this Society, and pointed out that the Liverpool Stipendiary said there had been no deliberate intention to break the law.

Albert James Watson, the manager referred to, was then called to prove that it is the custom in the shops to label all poisonous proprietaries, and, in reply to Mr. Robson, said he had never sold a bottle of poison without a label to his knowledge. He had several times seen Foulds in the shop.

Minnie Sunderland, assistant to Mr. Watson, proved that it was her duty to label the proprietary poisons; and William James Hollinwood, assistant, proved that no assistant was allowed to sell poisons without the supervision of Mr. Watson. Mr. Whitlee, manager of the manufacturers' branch shop in Oldham, also gave evidence as to the system which prevailed in the firm of the defendants as to the sale of poisons. This closed the case for the defence.

Mr. Robson and Mr. Sixsmith addressed the Court, after which the Magistrates retired.

Dr. Yates, the Chairman, on returning, said the Magistrates were of opinion that the sale had been proved. A bottle containing poison had been bought from the defendants which was not properly labelled, and the defendants had clearly failed to perform their duty on this occasion. There was no alternative but to inflict a penalty of 20s. and costs. The case was a proper one to bring before the Court, and an advocate's fee of a guinea would be allowed.

High Court Cases.

A QUESTION OF LIABILITY.

IN the Queen's Bench Division on February 17, Mr. Justice Channell heard the case of Barclay & Son (Limited) v. Riches. It was a claim for 71l. 0s. 10d. for goods delivered between July 1 and December 21, 1899. Defendant carried on business in the Mile End Road and also in the Kingsland Road under the name of the Northern Drug Company. Prior to May 6, 1899, plaintiffs supplied defendant with goods. The business in Mile End Road was carried on under the management of Mr. E. C. Roberts, and the question was whether the goods were supplied between the dates mentioned to the defendant or to Roberts. On May 6 defendant advised plaintiffs that he had disposed of the business in Kingsland Road to a Mr. Faulkner, but should continue his other business under management for the present. After that date orders were given in the same form and in the same handwriting, and goods were supplied. A cheque was received in August in payment of the May account, and in September defendant wrote that he had sold the business to Roberts, who had taken over book-debts from July 1. After that Roberts ordered goods, which plaintiffs refused to supply until the account was paid. He promised to pay, but did not. Ultimately Roberts disappeared, and defendant took possession of the premises on a mortgage. On intimation that business relations were resumed the plaintiffs looked to Riches to pay, which at first he agreed to do, by instalments, but ultimately denied responsibility.

Mr. Justice Channell said, in giving judgment, for Roberts, that the only way in which plaintiffs could recover their claim was by showing that it had been Riches' business all along, and never Roberts's. He drew the clear inference from the correspondence that the plaintiffs accepted the liability of Roberts in satisfaction of that of Riches.

Judgment for defendant with costs.

A. B. DICK & Co. v. ELLAM'S DUPLICATOR COMPANY.

IN the Court of Appeal on February 21, an application was heard against a decision of Mr. Justice Cozens-Hardy. The action was brought to restrain the defendants from infringing plaintiffs' patent for "improvements in the process of

and apparatus for the copying, duplication, and printing of writings, drawings, typewritings, prints, and designs." The Judge dismissed the action, with costs, on the ground that, though the infringement was clear, the patent was invalid for want of novelty, and the alleged invention had been anticipated by prior patents. The Master of the Rolls, in dismissing the appeal, said that he had reluctantly come to the conclusion that the patent was hopelessly bad. The patentee had possibly discovered a new, useful, and patentable invention, but he had by his specification claimed a great deal too much, and this was fatal to the validity of the patent.

A Slander Action.

At the Liverpool Assizes on February 20, Messrs. Evans, Sons & Co., wholesale druggists, Liverpool, sought to recover damages for slander from Dr. J. T. Martin, of Birkenhead. Watching briefs were held for Messrs. R. Sumner & Co. and Mr. R. Preece.

Mr. Taylor, Q.C. for the plaintiffs, in the course of his opening speech, said his clients had contracted to supply the Birkenhead Guardians with drugs and sundries on the basis of their price-lists. What they complained of occurred in connection with certain investigations and inquiries made on behalf of the Guardians, and were to the effect that they had been in the habit of overcharging very greatly for articles they had contracted to supply. These statements, he contended, were made with the intention of being circulated to the public, with the result that all the firm's customers would naturally feel that they might themselves have been victims for years of gross overcharges. Counsel then gave a detailed account of the dispute between the Guardians and their dispenser Preece (see *C. & D.*, December 9, 1899, page 930), from which all the trouble had originated. In consequence of the verbal statement made by Dr. Martin to the Board regarding the accounts, plaintiffs wrote to the Guardians asking to be furnished with exact particulars of the complaint, and offering to prove that they had strictly carried out the terms of their contract. In order to expedite matters, Mr. Davies, of the plaintiff firm, attended a meeting of the Guardians, and submitted to examination and cross-examination by Dr. Martin, who took exception to certain specific items. The first question that arose was in connection with a certain cough-mixture which was charged 4s. 6d., a pound, and Dr. Martin asked if that was a fair price? Mr. Davies explained that the mixture was made up from a special prescription sent by the Guardians themselves, and was not a thing that appeared in the price-list at all. It was specially strong, having been concentrated to several times the strength of the usual mixture. The second item was one of 6s. which the plaintiffs had charged for some rectified chloroform. The defendant said that was too much; it was, and ought to be, price 1 at 2s. Davies said 6s. was the right price, and asked Dr. Martin to produce any price-list he could where 6s. was not shown as the proper price for rectified chloroform. The defendant also said that Evans's had charged 6s. for Squire's chloroform, and further, that R. Sumner & Co. had supplied the Guardians at 3s. 6d. In respect to that Davies told him that 6s. was the right price for Squire's chloroform, and that Sumner had never supplied it; they had supplied to the Guardians tincture of chloroform and morphia, the market price of which was 2s. 11d. The third item had reference to a hypodermic solution of morphia, for which Dr. Martin said Evans's had charged 1s. 9d. an ounce, although the list price was 8d. There again Mr. Davies told him that the Guardians themselves had made out their own prescription, that it was not the article in the price-list, but something absolutely different. It was a special article, for which the proper price was 1s. 9d. The defendant then made a complaint as to two cylinders of oxygen, and asked Davies if three guineas each was a proper price for them. Davies explained the order came at a time when Messrs. Evans had no contract with the Guardians, and during the six months Messrs. Sumner, the contractors who were then supplying them, had not the cylinders in stock, neither had the plaintiffs, but they were told by the doctor, who telephoned over, that there was an urgent case in the hospital, and they tried far and wide to

get the cylinders. They ultimately obtained them from Messrs. Archer, in Liverpool, paid their price, and sent the cylinders to Birkenhead, making altogether out of the transaction a profit of something like 1*l*. Archer's invoice was produced to prove this. Then the defendant complained that 5s. 6d. had been charged for enemas, which, he said, could be got for 3s. 6d. Davies produced some samples, and pointed out to Dr. Martin that the order of the Guardians was for the best they could procure, for which the price-list was that charged. In regard to an item described as "Winechester quarts," the defendant said they ought to have allowed 2d. in the pound, but Davies explained that that was the discount sometimes allowed to chemists, but where they supplied Unions they made big discounts, and it was not usual to allow discount twice over. The only other item was one relating to corks, which was admitted to be a clerical error, and for which plaintiffs would give the Guardians credit. The defendant's statements were made at a meeting of the Guardians, and were published in the local papers. They consisted of a running commentary on various items and the charges—comments which the plaintiffs complained should not have been made after their representative's full explanation. Dr. Martin admitted the substantial accuracy of the report, and would not withdraw. Plaintiffs did not want damages, but desired to put themselves right with their customers and the public. Even now, if Dr. Martin would admit having made a mistake in making that statement and did not seek to substantiate it, they would be satisfied.

Mr. William Patterson Evans having given evidence in confirmation of the opening statement,

Mr. Pickford, Q.C., for defendant, said his client made no charge against the plaintiffs. The matter arose out of the dismissal of a dispenser, and was made in order to justify a resolution asking that official to resign.

Mr. Pickford then cross-examined Mr. Evans regarding the various items, with the object of showing that without the explanation given by Mr. Davies the charges would have naturally appeared to Dr. Martin to be high, and the comment of defendant in connection with the hypodermic injection was referred to.

Mr. Justice Grantham, interposing, remarked that a single item seemed hardly enough for the plaintiffs to rely upon in such an action.

Mr. Taylor: If I understand Mr. Pickford, on the part of the defendant, to withdraw the statement, although he may say he did not insinuate that this firm do make overcharges —

Mr. Pickford: I think I made it quite clear that I prefer not to say "withdraw," because I did not want to withdraw charges never made.

His Lordship: That being so, there is a natural operation of doing without one of the jurymen. The case was then adjourned.

On the case being resumed next morning, Mr. Pickford said he was glad to say that a night's reflection had been of use. He wished to repeat that the speech Dr. Martin made was for the purpose of justifying the resolution in regard to the conduct of the dispenser, and that in order to do that he recapitulated the grounds upon which the dispenser's conduct in passing the accounts had been challenged. That statement was to the effect that until some of those items were explained there seemed to have been some overcharging. But Dr. Martin wished to say that he did not say, and did not now intend to say after the explanation, that there was any intention to overcharge in any sort of way. He also wished to add that if what he said conveyed the impression that he was at that time intending to charge them with overcharging, he regretted it. He did not say that the plaintiffs made any overcharge at all. Their position was very high and well known, and there was not the slightest ground for attributing anything improper to them.

Mr. Taylor accepted, on behalf of the plaintiffs, the full and ample statement made by Mr. Pickford. At first the plaintiffs thought the speech meant to make fresh charges after having had explanations, but it was clear now that Dr. Martin was recapitulating the old charges that he had

made and not making fresh charges of any kind, and having said that he did not make any charges and did not intend to make any charges, and that in his opinion there was no foundation for any charges, the best way of settling the matter was to consent to the withdrawal of a juror.

His Lordship said he was very glad that the case had come to this end. On the one hand it had been plainly shown that the plaintiffs were entitled to the character and position which they had held for some time as very honourable chemists, providing drugs for all the hospitals and institutions as well as private trade. There was a great temptation to people with a name often to make a little more out of their contracts than otherwise they would be inclined to do, but the result of this inquiry had shown that the plaintiffs had come scatheless out of the investigation, and had justified their friends in giving them the high character they had hitherto borne. He had had to investigate many cases where members of Boards of Guardians had been very officious, and had said very nasty things, to give themselves honour and glory, and make their constituents see how well they were doing their duty, but he never knew an instance in which a member of a Board of Guardians was more justified in an investigation such as had been made here—he would not say in all the statements that were made; but it seemed to him that, the defendant being a medical gentleman himself, and being entrusted by a committee for the whole body of Guardians to look into this matter, he was justified in drawing attention to various items which, on the face of them, appeared excessive, and in saying what he did he did not do it intending to cast reflections upon the plaintiffs, but to draw attention to the fact that apparently there were overcharges, and give the plaintiffs an opportunity of explaining them. Under those circumstances, he thought it was a very fortunate decision that had been arrived at between the parties.

A juror was then by consent withdrawn, and the case concluded.

Sale of Food and Drugs Acts.

SEIDLITZ POWDERS.

At the Birmingham Police Court on February 16, Magor (Limited) were summoned for selling seidlitz powders not of the B.P. standard. Evidence for the prosecution was given to the effect that an inspector called at the company's shop in Broad Street and asked for a box of "effervescent tartarated-soda powders, prepared according to the B.P." On analysis by Dr. A. Hill, the City Analyst, those supplied were found to contain only 85 per cent. of tartaric acid. "Superior seidlitz powders" was printed on the box.

Mr. Pritchett, for the defence, took objection to the mode of division by the inspector, which, he contended, was not according to the Act. It had been proved that four of the white packets which the inspector took away were not according to the B.P., but that proved nothing with regard to the remaining eight in the box. In order to carry out the intention of the Act the inspector should have mixed the contents of the white packets and of the blue packets, and then divided each lot into three equal parts.

Dr. Hill said the inspector could not make an equal division; he would have no scales.

Mr. Pritchett argued that the quantity handed to Dr. Hill for analysis must be absolutely of the same quality as that left with the shopkeeper.

The Magistrate's Clerk said if there was anything in Mr. Pritchett's contention the Act could not be carried out, because according to the Medical Officer of Health it would be impossible to make a satisfactory division of one particular packet, and it was quite clear the prejudice of the purchaser arose over one particular packet. Any division, therefore, except the division of one particular packet, would not be strictly complying with the Act. The inspector had proved a deficiency in four packets, therefore there must have been a deficiency in one of them.

Mr. Bayley, managing director of Magor (Limited), stated that the seidlitz powders were obtained from George Welton, Son & Co. (Limited), Doncaster, and that firm's representative assured him he could rely on them, as they were made according to the B.P. When the powders arrived one was taken here and there at random, and weighed, and as these came out within a grain or so of exactness he

assumed the rest were correct. Messrs. Welton said every packet was weighed, and they could only suppose that one of the three who weighed them had not been sufficiently careful.

A penalty of 20s. and costs was imposed.

GEORGE TURLEY & Co., drysalts' sundriesmen, carrying on business in Edgbaston Street, were also summoned for selling seidlitz powders which contained only 47 per cent. of the requisite quantity of tartaric acid, 33 per cent. of the quantity of sodium potassium tartrate, and 213 per cent. of the quantity of sodium bicarbonate (or 113 per cent. in excess of that required by the B.P.). On each packet was the following warning to the public: "Thousands of boxes of common imitations of genuine seidlitz powders are sold by unprincipled traders for the sake of extra profit; we guarantee all ours to be genuine." Mr. Turley, sen., said he had been in the trade for thirty-eight years. He was taught to make the powders that way as an apprentice, and he had been quite unaware that a form for making them was given in the B.P., but he had not purchased the last two editions. They did a very small trade in seidlitz powders; they sold sundries and proprietary articles. They had never supplied seidlitz powders to chemists. The label on the packets was printed twenty-five years ago. Defendants, it transpired, had in 1897 been convicted for selling adulterated glycerin. They were fined 10*l.* and costs, with the alternative of a month's imprisonment.

Medicine=stamp Acts.

SELLING AT AN EXHIBITION.

At Leicester Police Court on February 16, Thomas Edward Butler (83), pharmaceutical chemist, and James Arthur Butler (43), chemist and druggist, were summoned for exposing and keeping ready for sale a stamped medicine—"Butler's Fever-powders"—without a licence. An Inland Revenue officer deposed that at an exhibition in the Floral Hall, where defendants were exhibiting, he purchased a box of the fever-powders for 4*d.* The powders had a Government stamp affixed, but no licence had been taken out by defendants for the sale of such powders at the Floral Hall. Mr. James Arthur Butler said his firm had two stalls at the exhibition, one of which was for show-purposes only. The box of powders was sold to the officer by a mistake on the part of his assistant. He had seven licences for the sale of the powders in different parts of the town, and it was not likely that he would run the risk of a 20*l.* penalty by exposing the powders for sale at an exhibition which lasted six weeks. A fine of 20s. and costs was imposed.

Offences against the Persons Act.

SAVIN OIL NOT NOXIOUS.

At the Gloucestershire Assizes last week, Henry Sturge Young (29), brewers' traveller, Thornbury, was charged with having administered to Ethel Lippatt a certain drug for an unlawful purpose. Mr. Lawrence, Q.C., for the defence, submitted that the drug (savin oil) in the quantity in which it had been administered was not noxious, and therefore did not come under the Act. Dr. Campbell, for the prosecution, had admitted that this was so, and this view was supported by Mr. Justice Bruce, who directed the jury to leave the question of intent out altogether, and say the drug administered was not noxious. Acting on this instruction, the jury returned a verdict of not guilty, and the accused was discharged.

County Court Cases.

CAN'T PAY.

At the Blandford County Court last week, Mr. Richard H. Groves, pharmaceutical chemist, Blandford, brought proceedings against James Hayter, fishmonger, Child Okeford, for 7*l.* 17s. 9*d.*, the amount awarded Mr. Groves in connection with a recent case (see *C. & D.*, December 19, 1899, page 998) which Hayter brought against him, and in which judgment was given for defendant with costs. It was stated that defendant had bad health, and was not in a position at present to make any offer. He had absolutely no

means and was practically out of work. Mr. Groves had no wish to be hard on the defendant, but he wished to obtain an order, and an order for 4s. per month was made.

THE AFFAIRS OF A BROMWICH DRUGGIST.

AT West Bromwich County Court on February 20, Mr. C. H. Darby, solicitor, made an application for an administration order on behalf of Arthur Bernard Slack, trading as M. M. Slack, druggist, of 119 Hill Top, West Bromwich. The debtor was unable to meet his liabilities, but was anxious to pay his debts in full. He had been ill himself, and had a sick wife at home. His total liabilities amounted to 47l. 13s. 9d., and he offered to pay his creditors in full at the rate of 30s. per month. The application was granted, the Judge remarking that it was a reasonable offer.

Ancient Lights.

AT Bristol Assizes, before Mr. Justice Mathew, on February 20, action was brought by Messrs. H. W. Carter & Co. (Limited), oil-refiners and mineral-water manufacturers, Bristol, to recover damages and an injunction in respect of alleged interference with ancient lights by Love & Wait, builders. Plaintiffs allege that defendants had raised the land adjoining their mineral-water factory, and had erected sheds and stacked timber and building-materials, which had the effect of reducing the light in plaintiffs' factory. Plaintiffs had enjoyed these lights for upwards of thirty years. They had made frequent complaints, and if defendants would even now give an undertaking to remove the obstruction the case might be withdrawn. Evidence was given by Mr. Henry W. Carter, chairman of the plaintiff company, in the course of which he said that since the action had been commenced the obstructions had been almost entirely removed, and he would be satisfied if the present state of things were continued. The Judge asked counsel whether, in view of this statement, it was wise to continue the action. Counsel for defendants said his clients were satisfied that there was no claim, and were prepared to risk the trial. The hearing was at this stage adjourned, and on resuming next day a verdict was given in favour of defendants.

Royal Baking-powder Company v. Wright, Crossley & Co.

IN the House of Lords on February 15, an appeal in this case was presented and read, and the respondents were ordered to lodge a printed case in answer thereto on or before Monday, April 2 next.

Bankruptcies and Failures.

Re GEORGE JEANES, Park Road, Liverpool, Chemist.

AT the Liverpool Bankruptcy Court, on February 15, it was stated that bankrupt's wife was very ill, and he did not appear. The examination was further adjourned for a fortnight.

Re WHITE & STACEY (LIMITED), Berners Street, W., Willesden, and Kilburn, Druggists' Sundriesmen, &c.

A WINDING-UP order was recently made against this company on the petition of a creditor, and on February 20 the statutory meetings of creditors and shareholders were held at the Board of Trade Offices, Carey Street, W.C. Mr. Cully, Assistant Receiver, who presided at both meetings, reported that it was one of those companies which were apparently formed to enable persons to trade without any personal liability. It was registered in May last, the promoters and vendors being W. H. Prendergast and G. B. Stacey, who had previously owned the business. The purchase-price was agreed at 800l., in fully-paid shares, and covered the good-will, stock, and fittings of the business, which had been carried on under the style of the "Times Household Stores." Prendergast stated that the business was established by him about twelve months before he formed the company, and that Mr. Stacey became a partner about a month or six weeks prior to the conversion. No valuation was made on behalf of the company, nor were there any balance sheets to show the profits on the trading, but Prendergast had returned them at 300l. a year, which was inconsistent with an affidavit made by him on the filing of the petition. He therein swore that the business had been carried on by him for thirty years with success, and that it had yielded a profit of

1,000l. per annum. Those statements would require further investigation. The business had apparently been carried on at a loss, the stock had melted away, and at the date of the winding-up order the landlord had distrained on the effects for his rent, and sold the lot for 12l. The statement of affairs had not yet been lodged, but the liabilities were only expected to amount to 400l. or 500l., and there were no assets. The circumstances attaching to the promotion and history of the company would be thoroughly investigated. Mr. Boughton, a director, having explained the part he took in the transactions, a resolution was passed for the Official Receiver to remain in charge of the liquidation.

Deed of Arrangement.

Rigg, George Farrer, 25 Finkle Street and 3 Greeseide, Kendal, chemist and druggist. Trustee, Theodore De Rome, Kendal, C.A. Secured creditors, 1,730l. 10s. Dated February 10; filed February 15. Liabilities unsecured, 1,834l. 17s. 8d.; estimated net assets, 1,244l. 10s. The following are scheduled as creditors:—

	£	s.	d.
Allen & Hanburys (Limited), London ...	15	0	0
Anglo-American Oil Company (Limited), Liverpool ...	12	0	0
Atkinson, Mrs. R., Kendal ...	12	0	0
Ayrton & Saunders, Liverpool ...	22	0	0
Baile & Hargreaves, Kendal ...	16	0	0
Barron, Harveys & Co., London ...	10	0	0
Beatson & Co., Rotherham ...	12	0	0
Borough of Kendal, Kendal ...	22	0	0
Cannal (Limited), Manchester ...	16	0	0
Clay, Dodd & Co., Liverpool ...	13	0	0
Cooper, W., & Nephews, Berkhamstead ...	12	0	0
De Rome, T., Kendal ...	60	0	0
Dobson, H., Kendal ...	279	0	0
Duncan, Flockhart & Co., Edinburgh ...	20	0	0
Evans, Sons & Co., Liverpool ...	125	0	0
Fallowfield, J., London ...	14	0	0
Fletcher, Fletcher & Co., London ...	17	0	0
Gill, E., Kendal ...	11	0	0
Goldhill & Co., London ...	19	0	0
Goodlass, Wall & Co. (Limited), Liver- pool ...	12	0	0
Hodgkinson, Prestons & King, London ..	29	0	0
Income-tax ...	12	0	0
Ismay, J., & Sons, Newcastle-on-Tyne ...	19	0	0
Kodak (Limited), London ...	11	0	0
Marston, Wyatt & Co., Norwich ...	12	0	0
Maw, Son & Thompson, London ...	43	0	0
Mellin's Food (Limited), London ...	15	0	0
Musgrave & Son, Kendal ...	10	0	0
National Telephone Company ...	13	0	0
Nelson Brothers, Kendal ...	45	0	0
Osborne, Edwin, & Co., London ...	10	0	0
Paget Prize Plate Company, Watford ...	11	0	0
Pearce, C. W., & Co., Glasgow ...	10	0	0
Raimes & Co., York ...	34	0	0
Reiss, G., Kendal ...	72	0	0
Ross (Limited), London ...	16	0	0
Simmous, E. & R., London ...	16	0	0
Southall Brothers & Barclay (Limited), Birmingham ...	16	0	0
Thompson, J., Barrow-in-Furness ...	23	0	0
Thompson, J. (Limited), Liverpool ...	16	0	0
Tomlinson & Hayward, Lincoln ...	12	0	0
Westmorland Gazette, Kendal ...	12	0	0
Whitwell, Mark, & Co. (Limited), Kendal ...	45	0	0
Woolley, J., & Sons, Manchester ...	19	0	0
Wright, Layman & Umney, London ...	29	0	0
Wyleys (Limited), Coventry ...	15	0	0

"WHOLESALE CHEMISTS' AND DRUGGISTS' CRICKET COMPETITION."—Cricket-clubs connected with wholesale chemists and druggists are cordially invited to enter for the Challenge Cup competition of 1900. Full particulars on application to the Hon. Secretary, Mr. E. Sibley, 64 Park Street, Southwark, S.E.

THE CLEANING OF SECOND-HAND BOTTLES.—At Albany has been introduced a Bill to regulate the use of bottles collected on dumps by providing that no person engaged in the manufacture, bottling, or sale of any article of food or drink shall use a bottle, flask, or jar collected on the dump unless thoroughly cleansed by the use of hot water and soap at a temperature of 200° and then steamed out at a pressure of at least 60 lbs. for at least five minutes.

New Companies & Company News.

COLONIAL CONFECTIONERY COMPANY (LIMITED).—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of confectioners, bakers, drysalters, chemists, druggists, preserve and condiment manufacturers, &c. The first directors are:—W. Faulconbridge (works manager), W. Jukes, and W. A. Williams. Qualification, 10 shares. Remuneration, 10*s.* each per board-meeting attended.

H. KERSHAW & SONS (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Objects: To acquire the goodwill and trademarks of the business of H. Kershaw & Son (Limited), to carry on the same as a branch of the Bradford Dyers' Association (Limited), and to manufacture and deal in chemicals and dyeing and bleaching materials. The Bradford Dyers' Association (Limited) are the controllers of the company. Registered office, 39 Well Street, Bradford, Yorks.

WILLIAM JOSEPH (LIMITED).—Capital 3,000*l.*, in 1*l.* shares (2,000 preference). Objects: To carry on the business of chemists, druggists, drysalters, dentists confectioners, &c., and to take over the business carried on by M. P. Davies at Wellington House, High Street, Tenby. The subscribers are W. Joseph, Pembroke Dock, manufacturing confectioner; C. Joseph, Pembroke Dock, manufacturing confectioner; Mrs. C. A. Joseph, Pembroke Dock; Miss N. E. Joseph, 17 Diamond Street, Pembroke Dock; J. B. Francis, High Street, Tenby, chemist; Mrs. E. P. Herand, 34 Diamond Street; and J. Edwards, Pembroke Dock. W. Joseph is the permanent governing director.

ELECTRO-CHEMICAL COMPANY (1900) (LIMITED).—Capital 200,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with the Electro-Chemical Company (Limited) (incorporated in 1894) for the acquisition of the business of the said old company, and to carry on the business of chemical, carbon, and alkali manufacturers, makers of sulphuric and hydrochloric acids, &c. The subscribers are:—T. J. Holland, Tunbridge Wells, C.B., D.L., colonel, retired; R. Vogan, Guildford, corn-merchant; L. Evans, King's Langley, paper-maker; R. Taylor, Ealing, gentleman; W. Dedrick, Lec, Kent; E. Shaw, 62 Cooper Street, St. Helens, Lancs, secretary; T. M. Dunster, Knockholt, gentleman; and R. Smith, Snodland, Kent, cashier. The first directors are T. J. Holland, L. Evans, M. H. Pirie, T. M. Dunster, J. H. F. Walter, and R. Vogan. Qualification, 1,000*l.*

AERATORS (LIMITED).—Capital 100,000*l.*, in 10*s.* shares. Objects: To acquire and carry on the business of a company of the same name, and to carry on the business of chemists, analysts, exporters, importers, shippers, and manufacturers of and dealers in all kinds of metals and the products thereof, manufacturers of receivers for compressed, liquefied, or other gases, &c. The subscribers are:—F. D. Bazzard, 12 Fordal Road, Catford, S.E., accountant; E. H. Knowles, 76 Constantine Road, N.W., secretary; L. Dearden, 18 Ulysses Road, West Hampstead, N.W., clerk; F. C. Bull, 8 Rita Road, Vauxhall Park, S.W., clerk; G. Elliott-Miller, 18 Southworth Road, Lee, S.E., factory manager; G. G. Sellick, 76 Constantine Road, N.W., clerk; and A. J. Campbell, 17 Cleveland Gardens, W., civil engineer. The first directors are:—H. V. R. Read (Chairman), G. Auget, A. J. Campbell, G. St. John Mildmay, and J. Order. Qualification, 500 shares. Remuneration, 1,000*l.* per annum and a share in the profits, divisible.

KRONTHAL COMPANY (LIMITED).—On February 18 Mr. Justice Kekewich appointed Mr. Maconachie receiver and manager of this company (now in liquidation), to April 30.

JOHN OAKLEY & SONS (LIMITED).—The report of the directors for 1899 states that the net profits, including 898*l.* brought forward, amount to 31,555*l.* A final dividend is recommended of 5 per cent. to the ordinary shareholders (making a total of 10 per cent. for the year), and in addition a bonus of 2½ per cent.

JUNIOR ARMY AND NAVY STORES.—The report of the directors states that the sales during 1899 increased by 60,540*l.*; a further sum of 2,100*l.* has been paid off the mortgage and debenture account; 16,000*l.* is written off for depreciation; and 2,000*l.* goes to reserve, making the fund 30,226*l.* in all. A dividend and bonus of 6½ per cent. is paid; and 3,875*l.* is to be carried forward.

CHARLES MUMBY & CO. (LIMITED).—The meeting of shareholders of this company was held at Southsea on February 16, Alderman J. Barnes, J.P., in the chair. The directors report recommended that the dividend for the half year ending December 31, 1899, should be at the rate of 10 per cent. per annum, making 7½ per cent. for the year; that 1,000*l.* should be appropriated to the reserve fund, making it

5,000*l.* in all; and 260*l.* be carried forward. The reports were unanimously adopted.

SPRATT'S PATENT (LIMITED).—The report of the directors for 1899, to be submitted at the annual meeting on February 27, states that the profit and loss account shows a balance of 38,759*l.* The interim dividend at 10 per cent. per annum absorbed 7,500*l.*, leaving 31,259*l.* The directors recommend a dividend at the rate of 9*s.* per ordinary share, making, with the interim dividend, 14 per cent. for the year, which will absorb 13,500*l.*; also an addition to special reserve, to raise it to 30,000*l.*, 10,000*l.*, leaving to carry forward 7,759*l.* There has been a large increase in the sales of the company's manufactures.

W. B. FORDHAM & SONS (LIMITED).—The report and balance-sheet for the past year have been issued, in which it is stated that the directors propose to recommend a final dividend of 9 per cent. per annum, which, with the interim dividend distributed in August last, makes 7½ per cent. for the year free of income-tax. The year's business has been satisfactory, and future prospects are good, although the profits have been somewhat interfered with by the disturbed condition of one of the foreign markets, in the trade of which the Company has always been interested. The balance to profit and loss account is 7,579*l.*, of which 2,100*l.* in interim dividends has been paid. The balance dividend will absorb 3,150*l.*, and it is proposed to vote the usual sum of 1,750*l.* to directors, leaving 579*l.* to be carried forward. The gross profit in trading during the year is stated at 22,014*l.* The meeting of shareholders will be held at 36 York Road, King's Cross, N., on February 28.

CIVIL SERVICE SUPPLY ASSOCIATION (LIMITED).—The report of the committee of management for the half-year ended December 31 states that the number of members is 5,365 and shares 354,480. The number of ticket-holders is 48,777, of whom 16,462 are members of the Civil Service. Goods were bought amounting to 777,662*l.*, and sold for 902,484*l.* The stock in hand was valued at 333,876*l.* The gross profit on trading is 130,953*l.*, and 972*l.* was received from other sources, making the total gross income 131,925*l.* The working expenses, excluding carriage, were 83,190*l.* being at the rate of 9*l.* 11*s.* per cent. on the amount of the sales. After allowing for interest on the reserve fund, the net balance is 23,805*l.*, which, added to 4,395*l.* brought forward, makes 28,200*l.* The committee recommends a payment at the rate of 12*s.* in respect of every ten 1*l.* shares; that 1,000*l.* be transferred to the reserve fund, and that 1,000*l.* be granted to the pension and gratuity fund and 250*l.* to the employees' provident fund. It is proposed to give 250*l.* to the Mansion House Fund for the war.

TRITICINE (LIMITED).—The public investigation of the affairs of this Company was again brought forward at the Wakefield County Court last week, when Mr. J. E. Paterson, "of Midlothian, Scotland," tendered himself for examination. Witness stated that on the prospectus there was a statement that no promotion-money was to be paid, and he was exceedingly surprised when he found that promotion-money had been paid. He experienced great difficulty in getting at the various books, and was under the impression that the board did not care for him to attend the meetings, as he asked too many questions. He was induced to become a director through a Mr. Hunter. He had spent 62*l.* 10*s.* in shares, but had received no dividend because he had not paid up his shares. Before becoming a director, however, he made inquiries and was absolutely satisfied as to the business, and when the prospectus was issued he was of opinion that 30,000 shares had been actually applied for. On August 16 the directors relieved him of all further liability on his shares on a payment of 100*l.* He paid the money. Mr. Claud Kemp, who was also examined, said the cost of making Triticine Food was very small, and the profit tremendous. He did not know why his name appeared in the prospectus. The examination was adjourned till February 27.

UNITED ALKALI COMPANY (LIMITED).—The directors of this company have declared the full dividend of 7 per cent. on the preference shares, carrying forward 35,000*l.*, as against 29,000*l.* last year. In a long letter to the *Financial Times* a correspondent criticises the company's position, and says that the announcement of the directors confirms the fears expressed recently as to the result of the year's

trading. From an analysis of the published reports, the writer finds that up to 1894 an average amount of 146,865*l.* per annum was reserved for depreciation. In the two years following 55,000*l.* and 41,000*l.*, respectively, were added, but since then (1896) no depreciation whatever has been provided for. Instead, the writer says, the balance of each year's trading has been carried forward to swell the balance to the credit of profit and loss account. In 1897 no dividend on the ordinary shares was paid, and only 22,189*l.* carried forward. The actual balance for 1898 (7,088*l.*) was so small that a dividend on the preference shares was barely met, and this could not have been paid if 108,134*l.*, the average annual amount of the first six years and two months' trading, had been transferred to depreciation account. From the statement made the balance for 1899, after deducting 29,277*l.*, carried forward from previous years, will amount to 5,723*l.* At the last annual meeting the chairman stated "that the prospect is distinctly hopeful," and that extensions of cyanide and fertiliser plants would be "in full operation this year"; further that the new works in the United States promised "to be a very satisfactory investment for the company," while another director who had visited the American works "trusted to see a very substantial sum at the end of the half-year from it." But these do not appear to have improved the dividend. [In this connection see the note in the *C. & D.*, September 30, 1899, page 559, where the profits of the company since its formation are clearly set forth. The *Financial Times* critic's statement as to the balance (5,723*l.*) in 1899 is misleading, as the sum of 19,175*l.* is required to pay the preference dividend, so that the profits work out at 198,898*l.*, as compared with 198,263*l.* in 1898, the debenture interest in each case having first been paid.—EDITOR.]

SANITAS COMPANY (LIMITED).

The annual meeting of this company was held on February 22 at the new extensive factory of the company, Pixley Street, Burdett Road, E. There was a large company present, and the proceedings were of a pleasant character.

Mr. C. T. Kingzett, in moving the adoption of the report (which, having been circulated, was taken as read), said it was not quite so good as they had reason to expect, owing to the want of any serious demand, due to absence of epidemics during the year. At the same time the business done was excellent, and the directors were able to present a report which was perhaps the best they had ever put before the shareholders. There was a larger gross profit than ever, and the dividend declared was equal to the best they had paid in former years. (An abstract of the report was published in the *C. & D.*, February 17, page 302.) A sum of 2,000*l.* was placed to the reserve fund, and a respectable balance had been carried forward to next year's account. He drew attention to the smallness of the directors' remuneration, which was due to the inability of Mr. Moll, through illness, to attend. Mr. Moll had been compelled for the same reason to retire from the board, and they much regretted the cause of his retirement. His place on the board had been filled quite recently by Mr. Cunningham, an old and large shareholder. (Applause.) Mr. Kingzett referred, with some amount of pride, to the new premises and land attached, of which they had been fortunate enough to obtain the freehold. The total expenditure in this direction, including the fitting-up of machinery and necessary plant, was 10,136*l.* The acquirement and fitting-up of these had been a matter of responsibility and hard work. (Applause.) During the year two new products had been brought out—a new drain-tester and a new formic-sulphugator, and they had every reason to believe these would bring a large accession of business to the company. (Applause.) He moved the adoption of the report, and that the declaration of dividend and bonus be agreed to.

Mr. Russell seconded the motion, and the report was agreed to unanimously.

Major Carter asked if the reserve fund were invested, and what was the condition of the American business.

Mr. Kingzett intimated that the reserve fund was invested—(applause)—and that the American business was being run at a profit, the details of which were embodied in the general report.

Mr. Zingler, as the retiring director, was then proposed and re-elected to the board; the auditors, Messrs. W. Williams & Co., were re-appointed, and after some appreciative remarks by Mr. Kingzett of his co-directors, Mr. Russell, and the Secretary (Mr. Harris) and staff, a vote of thanks was moved to the Chairman. This being heartily accorded, the meeting concluded.

Trade Notes.

THE WAR OFFICE have accepted a consignment of twenty-four dozen Mariani wine made by Mr. Mariani for use of the sick and wounded troops in South Africa. This gift is in addition to a previous one of eighteen dozen to the hospital-ship *Maine*.

THE 1900 LOPOTEN COD-LIVER OIL which Messrs. Randall & Son, 146 High Street, Southampton, are now offering, is particularly pale and almost odourless, while the taste is bland. We note that the oil is exceptionally limpid, a characteristic which will be appreciated by patients.

THE case of pharmaceutical chemicals which Messrs T. & H. Smith & Co., manufacturing chemists, Edinburgh, are to exhibit at the Paris Exhibition, is at present on view in their premises in Duke Street, Edinburgh. Amongst the contents are a large basin of codeine, valued at over 300*l.*, and a similar basin of morphine in beautiful crystals. Caffeine, theine, salicin, and aloin are also to be shown.

"THE INVALID'S HANDBOOK AND NURSE'S MANUAL" is the title of a price-list published by Messrs. Gilbert & Hall, chemists, Bournemouth. It runs to 212 pages, and differs from most retail trade price-lists in the exceptionally good taste which characterises its get-up, and in referring solely to invalid, sick-room, and surgical requisites. It is copiously illustrated, and the instructions for the use and care of instruments are remarkably clear. Recipes for the sick-room form a preface to the handbook, which is now in its third edition and is priced at 6*d.*

NEW PRICE-LIST.—From Messrs. Barclay & Sons, 95 Farringdon Street, E.C., we have received a copy of the new edition of their photographic price-list. We notice the addition of some new lines, and that the list is double the size of the last edition. An appendix has been added, in which are figured and priced a good selection of folders and spectacles. This should be a convenience to those chemists who are taking up visual optics, especially as Messrs. Barclay undertake to fill oculists' prescriptions. Retail prices are given throughout the list, the discounts being indicated by letters according to a key supplied to dealers only.

New Books.

Arey, A. L. *Elem. Chemistry for High Schools*. Cr. 8vo. 4s. net. (Macmillan.)

Burdett, Sir H. *Nursing Profession: How and Where to Train*. 7½ × 4½. Pp. 338. 2s. net. (Scientific Press.)

Coppock, J. B. *Volumetric Analysis*. 7½ × 4½. Pp. 92. 2s. (Whittaker.)

Densmore, E. *Consumption and Chronic Diseases*. Pop. Exposition of Open-air Treatment. 7¼ × 5. Pp. 206. 3s. 6*d.* (Sonnenschein.)

French, W. *Practical Chemistry*. Part 1. 7½ × 4¾. Pp. 133. 1s. 6*d.* (Methuen.)

Husband, H. A. *Student's Handbook of the Practice of Medicine*. 5th ed. Cr. 8vo. 10s. 6*d.* net. (Livingstone.)

Lawes, Sir J. B., and Gilbert, Sir J. H. *Agricultural, Botanical, and Chemical Results of Experiments on the Mixed Herbage of Permanent Grass-land*. Part 3: Chemical Results. Sec. 1. Phil. Trans., B. Vol. 192. Pp. 139-210. 3s. 6*d.* (Dulau.)

Medical Directory for 1900. 8vo. 1*l.*s. Churchill.)

Pfeffer, W. *Physiology of Plants*. Rev. ed. Roy. 8vo. 28s. (Frowde.)

Martial Poetry.

POSTCARD COMPETITION.

THESE are a few more of the verses sent in *à propos* of the chemists who have gone to the front as volunteer dispensers at 3s. 6d. a day, all found and no stripes.

Three shillings and sixpence for twenty-four hours,
How are we fallen, gracious powers!
A thousand and more apply at the door,
When the Government only asks two score;
Ready to pound, measure, and mix;
And grateful authorities venture to fix
Their price at three-and-six.

Up before daybreak to study the drill;
Then to manipulate plaster and pill;
Sharing their time, and attention, and skill,
'Twixt pestle, and mortar, and button-sticks,
The draught and the lotion they skilfully mix
For glory and three-and-six.

Honour to those who, called to the front,
Patiently, cheerfully, bear the brunt
Of the terrible strife, and early and late
Roll back the tide of our enemy's hate.
And honour to those who follow them close
With the bandage and lint and the comforting dose,
Hopeless of praise or heartening cheer,
Or pension, or medal, or cross next year.

A grateful country, we hope, one day
Will arouse to a sense of duty, and pay
Such trusty bricks
A slight advance upon three-and-six.

SIRUPUS.

'Midst the "red lightning of battle,"
The storm of iron and of lead,
Thunder of cannon and exploding shell,
Our gallant brothers are contending;
Jove's bird o' victory with uncertain wing,
Broods o'er the sanguined plain;
With shattered limb or ghastly sabre wound
Lies many a survivor of the bloody fray
Tended by skilful and by gentle care.
Well may the generous impulse impel
Our youth to emulate such noble toil;
To mitigate the agony of suffering—
Perchance of dying men—
Tyros of pharmacy inscribe your names
On honour's roll!—joining with those
Who did their best—yea, all
They could achieve.

MARTIAL.

In quiet times, amongst the peaceful arts,
None more than pharmacy has care and worth;
Its workers play no small or selfish parts,
And minister to many from their birth.

But war-clouds come, our soldiers fight and fall,
More men required, and more than quickly found;
For forty of our craft, too, there's a call
To help the surgeons, and their drugs compound.

The honour of our calling is enhanced;
For two score wanted *fifty* score applied;
To the midst of war their status as it chanced,
No fancy post—but yet a thousand tried.

From farthest lands came men, not one afraid
To fight for England's right against her foe;
But proud are we that members of our trade,
Almost a thousand, volunteered to go.

H. W. KEMP, Horncastle.

What cheer, Bill! Three-and-six a dye,
Ain't it reedicilus.

If my moke and biz don't pye
I'd blow mesel' for cussedness.

Now then, wot ye're a lauffin' at?
I hev heerd 'em sye

"It's a chempion wye fer gettin' fat,"
On nout' but scilly pye.

Now who ye're a gettin' at?

They on'y wanted fo'ty;

I'd back my old gal's hat
They git a thousand (asido) ought ter.

They 'em toffs, yer know—I lauff—

They on'y drink chempygne.

They ain't a doin' it fer oof,

They 'em doin' it fer fyne.

MACRENOCLAF.

The news came o'er the sea
Of English forces in a fix,
Fighting 'gainst men of treachery
And full of devil's tricks.

But ne'er in history
Of bloody wars, can case be found
Where brave Reservists joined the ranks,
From all the country round,

With such light hearts and free,
Right glad to serve for country's cause;
Such true, unselfish gallantry
Deserves a queen's applause.

And shall we e'er forget
To place those men of pharmacy
Among the noblest of the set?
Those men of pharmacy!

The brave young men of pharmacy!
Who rushed to give the doctors aid
When the dreadful, bloody price was paid

For South Africa's release
From Boerish bondage to our peace.
Ah! within their hearts, I ween,
Was room for Pharmacy and Queen.

ARTHUR SWABY BARNES, M.P.S.,
Woodville, Bennett's Hill, Dudley.

There are dreams by day as well as night,
There are dreams of fun as well as fright,
But dreams of fighting Kruger's men
Were kept from out a chemist's ken.

But, still a little we can do
To help our dear old land;
No fame, nor glory, it is true—

We fight against Death's hand.
So when you think of Tommy brave
Fighting far across the wave,
Remember one who Tommy will
Forget not for his helpful pill.

For there, beneath a broiling sun,
Where battles have been fought and won,
He toils, and helps relieve a pain
Which adds unto a dreaded slain;
He fights not 'midst the heat of strife,
He toils to save a valued life.
There mortal man is not his foe,
He fights 'gainst anguish great, and woe;
Then shout, my boys, a welcome give
When he returns to live,
Amidst the pleasures of a life,
A life we love to live.

MACRENOCLAF.

*Dedicated to my dearly-beloved and deeply-regretted friend,
E. Lee, otherwise known as "Kopje."*

A pill stood on a Transvaal kopje,
With horse-balls whizzing round;
Alas! he's hit. Oh, whop je!
A soldier's grave he's found.

For there, within the laager,
Was stood a Joubert's son;
He's hit poor Tommy's larder
With pil. hydrargyrum

MACRENOCLAF. (227/53.)

Not only 'midst the fighting-ranks
Our country needs our aid,
But in a post where trivial thanks
Is to the worker paid.

Yet men of mettle true appear
Whose patriot hearts aglow
Come to the fore, and volunteer
To leave their homes and go.

Twenty times the number needed
Come at their country's call—
Death and danger all unheeded—
Ready to risk their all.

All honour to the loyal hearts
Who such service render!
Their country, when they've done their parts,
Its best thanks shall tender.

E. WELLER, Pengo.

Westminster Wisdom.

COMPANIES BILL.

Mr. Ritchie is industriously postponing the second reading of this measure from Thursday to Monday and Monday to Thursday as Ways and Means and Supply block his way. The preliminary stage of Ways and Means was got rid of before 1 A.M. on Tuesday, and Supply, with two other items, before the Companies Bill was deferred, the Bill being put down for February 23. The interest in the pharmacy clause of the Bill is growing in the House, in consequence of THE CHEMIST AND DRUGGIST circular, and a number of members have written to their constituents promising to give the case for chemists their best attention.

THE OTHER ONE.

The Bill introduced by Mr. Faithfull Begg, Mr. Lawson Walton, Q.C., Mr. Gordon, Mr. Hedderwick, and Mr. Marks is set down for second reading on April 4, and has for its object remedial legislation dealing with some of the present evils under existing company law. To prevent loss to investors by directors proceeding to allotment on insufficient subscription of capital, the Bill proposes that the minimum amount on which allotment is to be made shall be stated in the prospectus. It also provides for the repeal of Section 25 of the Companies Act of 1867, and requires a return to be made to the Registrar of that portion of a company's capital which has been issued for other consideration than cash. It limits the amount to be paid to persons guaranteeing or procuring the subscription of shares, and lays down the principle that promoters and others who have not made a fair disclosure in the prospectus of all necessary facts for the guidance of subscribers shall be liable to compensate those who thereby suffer loss. The repeal of Section 38 of the 1867 Act, requiring the disclosure in the prospectus of the dates and names of parties to all contracts, is provided for by reason of the difficulty of complying with its wide requirements. The Bill also deals with trade creditors, mortgages and return of outstanding debts. It is also proposed to give the Courts power to remove directors from office, or declare persons disqualified to act as directors, and to order a meeting of a company to be called, and the preparation and registration of annual balance-sheets is provided for.

THE CENSUS.

On Monday evening Mr. Chaplin, the Lord Advocate, and Mr. T. W. Russell brought in a Bill "for taking the census of Great Britain in the year 1901." It was read a first time, and the second reading put down for Monday, February 26. Ireland is a distinct entity in this matter, and the Attorney-General for Ireland had to answer a question in regard to it on February 22.

TYPEWRITING IS NOT PRINTING.

This is wrong so far as the Post-Office is concerned, for typewritten letters are accepted as circulars under certain conditions. The Registrar of Joint-stock Companies is of a different way of thinking, and declines to receive for registration type-written special resolutions under Section 53 of the Companies Act, 1862, which requires that copies of special resolutions intended for filing must be printed. On Monday evening Mr. Kimber asked the President of the Board of Trade what legal authority there is for holding that typewriting is not printing, and why printing by the typewriting machines is considered non-compliance with the law. Mr. Ritchie, in reply, simply said that his Board had been so advised, as the Act of Parliament directs certain documents to be printed.

MIDWIVES BILL, 1900.

This Bill, which is down for second reading in the House of Commons on February 28, is "to secure the better training of midwives, and to regulate their practice." It contains provisions making it penal for any woman (after January 1, 1902) to take the name of midwife or any correlative title, or to act as midwife or in any like manner for gain, unless she has complied with the rules and regulations of, and has

become certified under, the Act. No uncertified assistant may be employed in midwifery practice. Provision is made also for existing midwives to receive full certification on production of evidence of qualification and practice; for a central midwives board to be appointed; the fixing of an examining fee (not to exceed one guinea); and keeping a roll of names of registered midwives, powers being given to county councils, &c., to issue licences and act as supervising authorities. It is proposed that the Central Board shall consist of four registered medical practitioners appointed by the Royal Colleges of Physicians and Surgeons, the Society of Apothecaries, and the Incorporated Midwives Institute; and two other persons, one appointed by the Lord President of the Council, and one by the Association of County Councils. The Bill only applies to England and Wales, and is almost a hopeless effort in view of the antagonism of many in the medical profession. The provision in respect to the County Councils is new.

ISOLATION HOSPITALS.

The Isolation Hospitals (Amendment) Bill was read a third time in the House of Lords on February 20. If the Bill passes through the Commons and becomes law, county councils in England will provide isolation hospitals for infectious diseases wherever they have power to do so. As hospital accommodation in populous districts is very deficient it is to be hoped the Bill will become law.

EXPORTATION OF CARBOLIC ACID.

Sir Cuthbert Quilter's fear of our enemies getting supplies of the crude materials for the manufacture of high explosives were somewhat allayed by Mr. Arthur Balfour, First Lord of the Treasury, in the House on Tuesday evening, when he put the question which we mentioned in our last issue, page 283. Replying to it Mr. Balfour said: I am informed that very careful inquiry was made as to the exportation of carbolie acid and other similar articles. It was proved to the satisfaction of the Government that there was a large and innocent trade in these articles with foreign countries and the colonies, which it would be clearly inexpedient to interfere with. The destination of these articles can usually be traced very accurately, and the honourable gentleman may be assured that instructions have been given which will insure that the objects of the proclamation shall in no way be defeated.

Personalities.

MR. THEO. H. WARDLEWORTH, F.L.S., of Liverpool, has returned from his trip to the western hemisphere.

MR. JAMES E. BENNETT, of Bennett, Sons & Shears (Limited), 167 Kingsland Road, N.E., was a steward at the festival dinner in aid of the funds of the Metropolitan Hospital at the Hotel Métropole on Thursday evening.

WE notice that the Hon. George T. Fulford is the "Man of the Day" in the *Toronto Globe* of February 3. In the course of the article it is remarked that "Mr. Fulford is one of the best specimens of the sturdy, self-reliant Canadian, with a patriotic love of his country and a firm conviction of its possibilities for future greatness." We may mention that Mr. Fulford is the only druggist in the Senate, and there has only been one other before him.

MR. CHARLES WHITEHEAD, F.L.S., F.Z.S., who has acted as technical adviser to the Agricultural Department of the Privy Council, and subsequently to the Board of Agriculture during the past fifteen years, has been compelled to resign that appointment owing to ill-health. Communications which have hitherto been addressed to Mr. Whitehead on matters relating to his official duties should in future be forwarded to the Secretary, Board of Agriculture, 4 Whitehall Place, S.W.

AMERICAN CONCESSION TO TRADE.—The United States House of Representatives on February 16 passed a Bill permitting goods in bond to be shipped through any port of the United States to foreign ports.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Riding for a Fall.

SIR,—We are all fairly well acquainted with the difficulties which surround the Pharmaceutical Council, and I, so far, have been unwilling to criticise its actions too closely; but it seems to me that we have now reached a stage at which silence on the part of any man who takes an interest in matters pharmaceutical would be a sin. Did the Council show any evidence of making an honest effort to cope with the difficulties of the situation I would still be silent, even if those efforts were crowned with failure. I have, however, come unwillingly to the conclusion that the great silence in Bloomsbury Square is not the silence of calm, vigilant waiting, backed by courage and determination, but the dead lethargy of men who have nothing to fall back on but weakness of character and vacillation of purpose. The country does not trust these men in the present crisis, and the country is right. If the clause included in the new Companies Act is to be combated successfully, chemists throughout the country must take up the matter for themselves and make themselves heard in Parliament through their representatives. It is too plain that if they are leaning on the Council they are leaning on a broken reed. I do not think that the clause will become law as it stands. I cannot believe that the Government means to push it seriously. It is too absurd, and altogether unjust. I think the Government has put it forward as a feeler, and will be quite willing to acquiesce in its modification. Holding this opinion, I quite agree with you in thinking that we will do better in trying to get it modified in our favour to the utmost degree, rather than in going for its total exclusion from the Bill. The sheet you have published in your last issue appears to me to be a remarkably lucid exposition of the whole case, and I am sending it on to Sir Robert Reid, who represents this constituency in Parliament. I hope that all the Secretaries of local Associations will send this sheet,* or some similar exposition, to their various representatives. It would be well, also, to secure some prominent member to take the lead in beating this clause into shape. We want to have all the members informed of the circumstances in which we are placed, and one prominent member pledged to lead off with an amended clause.

Why have I said that the Council is riding for a fall? Well, in the first place, by changing the footing on which the Preliminary examination stood, the Council has practically made apprenticeship to the drug-trade impossible. Scotland is the home of drug-apprentices, and there is not a man in Scotland to-day who could not tell Bloomsbury Square that this change in the Preliminary examination constitutes a deathblow to pharmacy. There will be nothing left for chemists to do but place girls behind the counter. These girls will not be taken on as apprentices, but simply as shop-girls; and they will not be in any way a source of guineas to Bloomsbury Square. They will be quite as useful to chemists as apprentices are, but they will not fill the blanks which will be left on the register of chemists as time goes on. This change was made for the avowed purpose of securing a better type of young men; but would it not have been better to see first to the securing of better conditions in our calling? If the conditions had been better, I have no doubt this move would have improved the type of young men engaged in pharmacy; but, as things are, they bid fair to stop the supply of young men altogether, and he is a poor economist who thinks he will improve any trade or profession by reducing the numbers of men engaged in either. The same might be said in regard to the increased strin-

gency in the qualifying examination, and now there are whisperings of a compulsory curriculum. It is plain that the Council is riding for a fall, and chemists throughout the country must rise up and say that this must not be until the conditions under which pharmacy is practised are so improved as to justify the change. I begin to wonder whether the men who are returned to the Council Board are of the best type, all things considered. I think it is a great disadvantage to have so many men selected in and around London. It might be better if the Council did not always sit at Bloomsbury Square. It might, for instance, sit at London, Liverpool, Manchester, Newcastle, Edinburgh, and Glasgow alternately, and by so doing secure the advice and services of men in different parts of the country. Most of the men who sit on the Council at the present time are London men, or men not far from London, and although they have during the reign of the Pharmacy Act shown themselves competent to look after the educational side of pharmacy, they have failed miserably to look after the interests of chemists after they are qualified. I have no wish to rake up bygones, but no one who knows anything of pharmacy in this country can fail to see that the Council has nothing in all its past history but a miserable record of failure and humiliation. It is, in my opinion, hardly possible that so much humiliation could have been encountered by men who were earnest and energetic in the interests of so good a cause as that of pharmacy, and men who are less than earnest and energetic have no right to put themselves forward for service on the Council.

Dumfries, February 19.

JAMES REID.

The Federation View.

SIR,—I have nothing to find fault with in your criticism of some of my remarks to the North Staffordshire Chemists' Association meeting, but your comments make the inaccuracy of your report of my address (*C. & D.*, page 282) the more important.

You evidently had a correct report before you when you alluded to my recommendation that the pharmacy clause of the Companies Bill should be negatived, on the ground that the many defects in pharmacy-law should be dealt with in a Pharmacy Bill, when the whole question would be considered, and not in the Company Bill. In your report of the meeting, I am made to say that the Federation view was the Scotch one—that a company should be allowed to carry on the business of pharmacy provided each shop was managed by a qualified person and carried on under certain regulations. I positively never said anything of the kind, and as there was, I believe, only one reporter at the meeting the three trade-journals must have received their reports from the same source. Of these, one is almost accurate and verbatim, another appears to have been written up by the office-boy, while your own is misleading and likely to injure the organisation I represented. I know the unprofitableness of disputing with an editor, and I know the difficulties you of the press have very often in making the remarks of speakers appear rational. I have often been indebted to you for being put into shape; but on this occasion the Federation, through me, has been less fortunate.

Yours truly,

164 Aigburth Road, Liverpool,

JOHN SMITH.

February 17.

[We regret that our condensation-process has led to misrepresentation of Mr. Smith in regard to one point—the Federation view. Otherwise our report was a fair condensation of his speech. The Federation view is a bit nebulous, however.—ED.]

Division of Minor.

SIR,—I was pleased to read last week the discussion of the Pharmaceutical Council *re* division of the Minor examination. I am of Mr. Young's opinion that the present examination is far too exacting. It is a process of hard pressure to get the mind filled with all the matter required for the six subjects. The only other examination to be compared with the Minor is the London B.Sc., and that, I am sure, is more reasonable. With such results as have been reported lately (238 failures out of 314 candidates), it is evident that the matter should be looked into closely. I think the President talked thoughtlessly when he said piecemeal examinations were not suitable for getting well-trained men. What would some of our medical men think if they read such a speech as this? At the present time, 50 per

* See note on page 360 in respect to this.—EDITOR.

cent. of our medical men have qualified by piecemeal examinations, for what more are the L.S.A. and M.R.C.S. but piecemeal examinations? If a man sits for the L.S.A. he may take two subjects at a time, and should he only pass in one, he is credited with the one he has passed in, and has not to sit again for both of them. This is the system I should like to see the Minor examination conducted upon: we should get men better read and with a firmer foundation of science. I hope, now the matter has been fairly opened, some steps will be taken to improve the system of the examination.

Brackley, February 21.

C. O. G. (6/55.)

SIR,—“Antipyrin” has made some remarks to which I feel it my duty to reply. He says I lay down the law too much—that I desire to pass the examination in easy stages. If “Antipyrin” only took the trouble to read “between the lines” in my letter, he would have seen at a glance that my remarks pointed in not a single instance to passing the examination in easy stages. As matters stand at present the Minor is like an individual going into a business establishment, making a purchase, paying for the same, and some time afterwards, on entering the same establishment, being asked to again pay for the articles. “Antipyrin” also deprecates my desiring that the second day’s part of the examination should be written. And why not? The Major is. I contend that the manner of conducting both examinations should be the same, and I am of opinion that if this alteration was made a larger number of Minor men would be encouraged to take the Major. “Antipyrin’s” views differ widely from those of Mr. Claridge Druce (a former Bloomsbury examiner), who stated some time since that there is great danger at present of the Minor drifting too much into a scientific examination and less pharmaceutical. I would also refer “Antipyrin” to the address of Professor Leech at Bloomsbury Square, when he said that “the commingling of many subjects has been found to produce unsatisfactory results in medical examinations, and I am of opinion that it is equally injurious to those connected with pharmacy. I note that the rejections at the Minor are extremely high, and though defective methods of education may be the cause of this, I am inclined to think that it is to some extent the necessary result of combining so many subjects in one examination.” He further stated: “The examination should be divided into at least two parts. There are many objections to the inclusion of all subjects in one examination. It leads to a system of cramming, for there is a system of cramming for practical as well as for oral examinations. It is often a hardship on the student who works well and honestly; but, above all, it prevents men working well at any one subject, for excellence in one does not necessarily cover a slight but fatal error at the examination, and, indeed, may lead to it.” I do not agree with your correspondent of last week who stated that the mere fact of a candidate coming down on his first day, having on a former occasion got through it, was an indication of weakness in his work. I hold an opposite view. I take it that that candidate devoted more time in proportion to the oral portion than the practical when preparing, which a candidate is likely to do in an examination where so many subjects are included as in the Minor.

MINOR CANDIDATE. (2/52.)

Byrne & Shaw (Limited).

SIR,—In reference to the several notices of our company which have recently appeared in your journal, and the report of the proceedings under the Companies Acts in the Vice-Chancellor’s Court, Dublin, in your last issue, it is only right to say that the petition was unopposed, in view of the fact that Mr. R. Robinson Black, of 4 College Green, Dublin, who acted as solicitor for the company, had made an arrangement through his solicitor, Mr. James O’Connor, 118 St. Stephen’s Green, Dublin, to pay off all the liabilities of the company, and do other things in connection with the matter, prior to his dealing further with the company’s business.

Yours faithfully,

For BYRNE & SHAW (LIMITED),

Dublin, February 20.

T. BYRNE.

The Personal Responsibility of the Prescriber.

SIR,—Even the dispensing chemist—much-maligned being—has his uses, as the enclosed prescription, handed to

me on Monday, may testify. This fact has not come to the General Medical Council, who will strike a doctor off the register if he allows an unqualified assistant to feel his patient’s pulse, but permits him to let the page-boy prepare the prescriptions. I would suggest you try to bring together a collection of authentic instances where the qualified dispenser averted death.

Yours truly,

M.P.S.I. (6/39.)

[Our correspondent sends us the original of a prescription by an Irish consultant, which reads as follows:—

Acet. ipecac. ...	...	...	5j.
Morphia ...	...	...	5j.
Potass. nitrat... ..	...	...	5j.
Spt. chlor. ...	...	...	5iss.
Mist. amygdal. ad ...	...	...	5ss.

M.

A tablespoonful every three hours.

As the prescription is written in violet ink we are unable to reproduce it in *facsimile*, but it will be observed how much the patient owes to the dispenser.—EDITOR.]

A Rival to Kimberley.

SIR,—I believe, or at least trust, that I have discovered a process which may result in, or ultimately lead to, the artificial production of diamonds. I have arrived at the details of this process after months of thought, but as the experiments are of rather an intricate nature and will require more time and money than I can possibly devote to them, I take the liberty of asking your kind advice on the subject, though possibly such may not come under your sphere of work. What I am particularly anxious to discover is, would any person or persons be willing to take up and carry out the experiments for the sake of research? I am confident that my ideas are far in advance of any previous attempts to produce the article in question. If you think fit to publish this kindly leave out any clue to my personality or whereabouts.

I am, yours truly,

ANON. (5/17.)

[This letter comes from such a high quarter, and is so *à propos* this week, that we cannot deny ourselves the pleasure of publishing it.—EDITOR.]

Murcia Lemons.

Mr. R. Madgshon (Yarrow) calls our attention to the fact that Miss F. C. Madgshon, in her paper on Murcia lemons (*C. & D.*, February 17, page 284), stated that the acid in the juice was found to be 4 gr. per oz. *less than in ordinary lemons.*

Dispensing Notes.

A section for the elucidation of difficulties and interchange of views on dispensing-problems.

What was Meant?

SIR,—I received the following prescription to-day:—

Syr. hyposulph. 3iv.

5j. ter die.

The word “hyposulph.” is so distinctly written that I should like to know if there is such a syrup. I do not remember one.

Yours,

SCARAB. (139 91.)

[We know of no syrup such as ordered above, but if the prescription is for an adult no doubt syr. hypophosph. co. is meant. The doctor is, perhaps, an amateur photographer, and was thinking of “hypo.” at the time.]

Strychnine-mixture Darkens.

SIR,—After this mixture is made a few hours it darkens considerably. Why is this?—

Ac. nit. mur. dil. ...	...	...	℥ 80
Liq. strych. ...	...	...	℥ 40
Aq. ad ...	...	...	3iv.

3ss. bis die ex aq.

Yours,

VIVEX. (207/18)

[The darkening is probably due to brucine. A very small quantity will produce the change. In some cases it takes days before colour is developed, on account of the infinitesimal quantity present.]

A Peculiar Odour.

259/49. *Ferrum Tartaratum* sends us the following prescription with a sample of the mixture which he prepared from it. His customer complains that the mixture has the odour of cod-liver oil, and she thinks that this is due to carelessness on our correspondent's part.

Ferri tartarati	...	...	gr. viij.
Liq. arsenicalis	...	...	℥ij.
Aq. chlorof. ad	...	...	℥ss.

Mitte tales dixit.

Our correspondent has made up the mixture with different samples of tartarated iron with the same result. Undoubtedly the mixture has a fishy or seaweed-like odour due, we imagine, to some reaction between the chloroform and the alkali of the liq. arsenicalis in presence of the metallic compound, because the odour reminds us of that which is evolved in the isonitrile test for acetanilide. We should be glad if some of our subscribers would make up a little of the mixture exactly as written above, and report their experience. It may be that some may not detect any change in odour, as only two of the pharmacists on our Editorial staff agree with "Ferrum Tartaratum" about the smell.

243/51. *Ama.*—The precipitate in the mixture is merely extractive and fatty matters from the tinctures influenced by the salts and water.

5/31. *X. Y. Z.*—For elixir aromat. sec "Pharmaceutical Formulas." Syr. aromat. B.P. is the British substitute for it.

Precipitating Mixture.

SIR,—Would you please say how the following mixture can be made presentable and palatable (with aromatics or otherwise) without impairing its therapeutical value?—

Ext. pisciæ erythrinae	...	...	℥ss.
Ext. viburn. prunifol.	...	...	℥j.
Ext. hydrastis liq.	...	...	℥ij.
Aq. ad	...	...	℥viij.

Yours,

PHARMACOPŒIA. (247/45.)

[A little ext. glycyrrh. liq. would mask the taste of the mixture, but it would be difficult to make a presentable mixture without interfering with the formula. If the physician wished, the mixture could be kept clear by the addition of spirit or glycerin.]

Apomorphine Mixture.

SIR,—I should be glad to know what decomposition occurs in prescription as follows:—

Apomorphinae hydroch.	...	...	gr. ss.
Codeinae	...	...	gr. ss.
Potass. iodid.	...	...	gr. xxvj.
Potass. nitrat.	...	...	gr. xxxvj.
Syr. aurant.	...	...	℥j.
Aq. ad	...	...	℥viij.

When made up the mixture is merely tinted yellow with the syrup, auranti, but in half an hour it begins to darken in colour, and in three or four hours the mixture becomes a dark olive-green, and finally gives a black muddy precipitate. The codeine seems to be the cause of the decomposition, as without it the mixture remains unchanged.

Yours faithfully,

H. H. (247/29.)

[Apomorphine hydrochloride is much subject to colour-changes: even alone in solution it soon changes to emerald-green, the change being hastened by mixing with other chemicals. With many chemicals apomorphine gives a precipitate. In the above mixture there is a considerable amount of black deposit, due not only to the codeine, but the presence of other salts, because, although there is a certain deposition when codeine is added to solution of apomorphine hyd., a similar change takes place when nitrate or iodide of potassium is added, although to a much smaller extent. Coloured-glass bottles should be used when dispensing apomorphine solutions.]

Legal Queries.

Before sending in a query for reply in this section see if the subject is not dealt with in "The Chemists' and Druggists' Diary," 1900, pages 212-226, and pages 259-262.

258/20. *Eucalyptus.*—The fact that a patent has been granted for a Preparation for Dishorning Cattle does not

prevent everybody else than the patentee from making dishorning-preparations. You should get a copy of the patent referred to, granted about two years ago, and see whether yours is or not a similar preparation. Perhaps the patentee will tell you the composition of his article.

258/38. *X.*—Oil of Lemon and Essence of Lemon.—We have nothing to add to our statement regarding this matter which appeared in this section January 27, page 192.

374/24. *J. W.*—Mange-lotion, recommended for dogs, cannot be liable to medicine-stamp duty, as this duty applies solely to medicines recommended for the cure of human complaints.

6/54. *Dens.*—There is nothing whatever in the handbill which you send which would bring you under the Dentists Act, as you neither use a title implying that you are registered under that Act, or any statement implying that you are specially skilled in dental surgery.

258/49. *Subscriber* bought a Warehouse and Ground, behind which is a field belonging to another proprietor. The warehouse has windows overlooking the field, and "Subscriber" proposes to extend the warehouse, and to put windows in it similar to those in the existing warehouse overlooking the field. He wants to know if he may legally do so. [The owner of field cannot prevent our correspondent from opening windows in his new warehouse, and the only right he has is to obstruct same by an erection on his own property. Such erection might, however, obstruct the ancient lights in the old warehouse, in respect of which our correspondent would be entitled to an injunction.]

233/38. *Lexicon*, who holds premises on lease, asks if the landlord can legally compel him to pay Fire-insurance premiums on the building, and, if the premises were burnt down, would he require him to rebuild? [If the lease is silent as to the insurance, the landlord cannot claim the premiums for the insurance from the tenant. If, however, the lease contains a proper covenant to repair, then if the house were burnt down the tenant would be bound to reinstate same under his covenant to repair, the cause of the non-repair being immaterial.]

6/53. *Remija.*—The circumstances under which you supply the Female Pills do not make you criminally liable. But, are you certain in the case of every sale that the circumstances are as you state? You should read the extract from the Act dealing with this point given in our Winter Issue, page 157, especially the second paragraph in second column.

8/10. *Spero.*—An engagement entered into in writing, whether in respect to a situation, sale of goods, or anything else lawful, if broken by either party before the date of execution, is a breach of contract, and there is cause for action by the person aggrieved.

8/6. *Stores.*—The Sweet-nitre label which you send is one of those which are on the border-line of the Sale of Food and Drugs Acts. "Sweet spirit of nitre" is a pharmacopœial synonym for spirit of nitrous ether, but "sweet nitre" is not. The addition of the shorter words, "Not spt. æther. nit. B.P.," is not, in our opinion, sufficient notice to the purchaser of sweet spirit of nitre that the substance is not of the nature and quality demanded, and the seller should certainly call the attention of the customer to the notice on the label. We assume, of course, that the spirit sold is not of pharmacopœial quality.

7/80. *Pil. Ferri.*—We do not think that the Board of Inland Revenue would authorise the description, "Blaud's Iron Tonic Pills," to be used without stamping the medicine. In the case of pharmacopœial articles, such as Gregory's powder, the Board has given general permission to use the name in the possessive case, provided the label bears a notification that the medicine is prepared according to the British Pharmacopœia or other accepted authority, but there must be no recommendation whatever added to it, and that your label appears to involve.

5/25. *Galen.*—A Month's Salary in Lieu of Notice has been proved to be the custom of the trade, but we are not

aware of any case in which an indoor assistant has received an allowance in respect to board and lodging, nor do we think a claim for such allowance would be admitted.

4/55. *Chemist*.—It is not illegal to use bisulphate of potash in baking-powders or glucose in jams.

4/63. *C. H.*—As far as we are aware, Dr. Williams's Pink Pills contain no scheduled poison. Certainly your formula does not agree with analyses which have been published.

4 51. *North-East*.—An I.O.U. is a mere acknowledgment of a debt, and is evidence of an account stated, but not of money lent. If it is desirable to make it an agreement to pay on demand (*i.e.*, to be made negotiable) it should be stamped as a promissory-note.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

248/9. *X.*—The burning to which umber is subjected in the process of manufacture is calculated to rid it of vegetable matter. See article on the subject, *C. & D.*, January 28, 1899, page 169.

249/22. *Atropa*.—Dilating the Pupils.—A weak tincture of belladonna or diluted solution of atropine is used for dilating the pupils by some actresses, but the use of these solutions is attended with risk.

249/17. *Matric*.—The matriculation examinations of most universities are accepted by the Pharmaceutical Society in lieu of the Preliminary, and will continue to be after August, 1900. For fuller particulars see *C. & D.*, May 6, 1899, page 722.

239 5. *Kima*.—The hair-preparation you send must surely be a dye, it being a solution of pyrogallol in water, preserved with boric acid. The information you send about the sample is very meagre.

242 9. *Colic*.—Colic-mixture for horses, like your sample:—

Chlorodyni	5j.
Spt. ætheris nitrosi	5j.
Aque	5j.

This is one dose, generally administered in 1 pint of linseed oil, and repeated in two hours if needful.

234/45. *Ungt*.—The ointment used for liver-complaints seems to be lanoline coloured with vermilion. The idea is probably to stimulate the liver by friction. Our analysis was limited by the small quantity you were able to send.

237/68. *C. S. B.*—The sample of **Stylographie Ink** is a solution of methyl blue. You will be able to determine the quantity after a few experiments.

244/34. *Emulsio*.—No fuller information regarding the preparation of malt and oil than that given in "Pharmaceutical Formulas" is to be found in any book. All extracts prepared *in vacuo* contain micro-organisms which set up fermentation. This is especially the case with extract of malt, and salicylic acid in the proportion of 1 gr. to the ounce is sometimes added to prevent fermentation. The cod-liver oil used along with the extract should have 1 drop of chloroform or cinnamon oil added to each ounce before mixing.

248/54. *G. F. G.*—The polish on pearl-coated pills is obtained by rapid revolution of the pills in a cylinder made of bolt-cloth, the interior of which is sometimes rubbed with hard paraffin. A great deal, however, depends upon the application of the pearl-coating and the fineness of the French chalk used. This is a special department of the pharmacist's art, and you should not think yourself incompetent because you do not succeed in getting the elegant finish that experts do.

253/44. *N. G.*—You will find all particulars regarding the **Qualifications for an Analyst** in our Educational

Number, September 2, 1899. There is no legal qualification, but the Local Government Board now require that persons who are appointed public analysts shall hold the Fellowship of the Institute of Chemistry.

249/39. *H. & C.*—Anatto-colouring—See *C. & D.*, August 19, 1899, page 339, and January 15, 1899, page 100.

249/35. *P. C. F.*—Indigo-carmin (sodium sulpho-indigotate) is added to gall-and-iron inks to make them write blue-black.

250/22. *Naz*.—Quinine-seeds yield a mucilage after macerating with water.

252/37. *Bazaar*.—The dresses of the little weather-dolls are saturated with a strong solution of cobalt chloride and dried. The tint of the dress varies according to the amount of moisture in the air.

234/47. *J. M.*—Mouth-wash, as your sample:—

Gum myrrh.	5j.
Ol. menth pip.	5iss.
Ac. carbolic.	5ij.
Aq. coloniensis.	5j.
Spt. tenuior.	0j.

Macerate for a fortnight, and filter.

252/33. *Creshire*.—"Galmier's Extract," for skin-disease. Goulard's extract is probably intended. Galmel or galmeistein is a synonym for calamine. A few questions put to the customer would perhaps give you the hint as to what is required.

254/44. *Leas*.—Colonel T. Davies Sewell, the Guildhall, E.C., will forward you the syllabus of the Spectacle-makers' examination, which gives particulars of the books required for study.

257/33. *Christian*.—Your query does not come under the rules of this column.

254/54. *Civ*.—Dyeing Silk.—The German method of dyeing silk with diamine colours is to use the colours in a soap-bath, with the addition of phosphate of soda, Glauber's salt, or common salt and a little soda. The salts are added to better exhaust the baths, and are therefore of use principally for dark shades. By varying the quantities of salts and soap and the temperature, varieties of shades are produced. After dyeing the "raising" is done with a weak acetic-acid bath. Cassellas, of Frankfurt, who are the patentees of many of the diamine dyes, publish a book of instructions for using them on silk and cotton.

249/51. *J. W.* has a large collie dog very much troubled with gatherings on the toes, for which he wants a remedy. He probably refers to **Interdigital Eczema**, which is a very troublesome complaint to deal with. Generally zinc ointment, with acid, carbol, 10 gr. to 1 oz., is recommended, changing it for boric acid and lanolin. We have known it cured by the following more severe remedy:—

Ol. terebinth.	5j.
Ol. picis	5j.
Ol. olive	5j.

M.

To be applied every other night.

259 28. *Nemo*.—The leaves used for packing sticks of liquorice are bay-leaves.

Information Wanted.

Postcard replies to any of the subjoined inquiries will be esteemed.

6/49. Can anyone inform us of any use to which amidon in lumps may be put, or who will buy such material?

5/23. Makers of green oiled silk.

3/60. The address of Dr. Hunter's Medicine Company, formerly of 15 Park Place, Leeds.

4/20. What is "amberoid," an imitation of amber, composed of?

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C.: February 22.

BUSINESS has been somewhat quiet this week, but prices generally remain very firm, with an upward tendency. The chief features of the week have been an advance of a penny in the official price of quinine and a halfpenny in German refined camphor. Quicksilver is also very firm, and a rise looks imminent. Cinchona-auctions were held in London on Tuesday, at which the unit of quinine advanced to 2*d.* In crude drugs there was a considerable demand at the close of the drug-auctions last week, the chief articles dealt in being Rio and Cartagena ipecac. (mostly the latter), benzoin, dragon's-blood, and guaiacum gum. The following table shows the principal changes of the week:—

Higher	Firmer	Easier	Lower
Arrowroot Bromides Camphor (Germ.) Cinchona Oil, clove Quinine	Copper sulphate Menthol Pimento Quicksilver Oil, linseed	Lime-juice Oil, lemon	Pepper Shellac, button

Arrivals.

The following drugs, &c., have arrived at the various ports of the United Kingdom from February 15 to 21 (both inclusive):—Aloes, 5; balsam copaiba, 3; benzoin, 51; birdlime (Jap.), 55; camphor, 372; cannabiss indica, 84; cardamoms, 129; castor oil (Ital.), 31; chamomiles, 10; cinchona, 501; coca-leaves (Ceylon), 9; cod-liver oil, 10; croton-seed, 16; eucalyptus oil (Aust.), 30; galls (Chinese), 200; gentian, 109; gum arabic (Aden), 35; gum olibanum, 118; gum thus (bris.), 100; honey, (Queensland) 51, (Ital.) 10; juniper-berries, 85; lime-juice, 355; lime oil, 25; menthol, 20; nux vomica, 2,213; opium (Tky.), 22; orange-peel, 26; orris, 12; quicksilver, 100; quinine sulphate (Java), 291; senna, 7; soy, 103; squills, 20; tamarinds, 7; turmeric, 121; vanilla, 50; wax, bees', 60.

Prompt Removal of Duty-paid Goods.

A General Order ¹³⁴/₁₀₀₀ has been issued by the Board of Customs this week, relating to the prompt removal of duty-paid goods from bonded warehouses. It states that the retention in a bonded warehouse of dutiable goods after duty has been paid thereon is to turn the warehouse to an illicit use, and that warehouse-keepers and owners of bonded goods must remove the goods as soon as the duty is paid.

For Mincing Lane Brokers.

The conviction of Messrs. Christie, Manson & Woods on Tuesday, at the Marlborough Street Police Court, under the Merchandise Marks Act, for selling at their auction-rooms some inferior French china, which bore (falsely) the Dresden trade-mark, is a matter of considerable importance to all auctioneers, and not least to those in the drug-market. Messrs. Christie themselves say, indeed, that it will be impossible for auctioneers to carry on their business if this conviction stands. They expressly stated, in putting up the lot, "we sell this for what it is," intimating their doubt as to its genuineness. They certainly had nothing to do with affixing the false trade-mark, and nobody suggested fraud on their part; but the Magistrate said he did not see how he was to distinguish between an auctioneer and any other trader, and he imposed a fine of 10*l.* and 10*l.* 10*s.* costs. The decision is, of course, to be appealed against. Though this case arose over a forged trade-mark, the section of the Act applies just the same to a false trade-description. So that the sale of any

drug inaccurately described, no matter how careful the auctioneer may be to repudiate responsibility for that description, will be a criminal offence if this sentence should be confirmed.

Japanese Trade.

From the Japanese ports of Hiogo and Osaka the following drugs were exported in 1898, the figures in brackets being those for 1897:—Ginseng, 146,207 lbs., valued at 14,763*l.* (162,751 lbs., 19,671*l.*); ginger, 267,127 lbs., valued at 1,178*l.* (1,300,494 lbs., 5,086*l.*); gentian, 82,603 lbs., valued at 6,004*l.* (105,149 lbs., 6,175*l.*); galls, 627,612 lbs., valued at 11,149*l.* (321,562 lbs., 8,881*l.*); sundry drugs, 35,858*l.* (25,369*l.*); antimony, 1,328 tons, valued at 22,111*l.* (1,553 tons, 27,177*l.*); cuttlefish, 1,299 tons, valued at 42,330*l.* (1,667 tons, 52,730*l.*). Among drugs, chemicals, &c., the principal articles imported were:—Alcohol, 2,271 tons, or 37,471*l.* (997 tons, 14,738*l.*); musk, 9,061*l.* (5,232*l.*); amorphous phosphorus, 240,989 lbs., or 26,034*l.* (197,897 lbs., 25,209*l.*); potash chlorate, 4,291,909 lbs., 55,062*l.* (2,857,093 lbs., 43,759*l.*); salicylic acid, 234,239 lbs., or 20,109*l.* (129,202 lbs., 10,687*l.*); bicarbonate of soda, 1,219 tons, or 7,490*l.* (917 tons, 5,875*l.*); caustic soda, 4,244 tons, 26,028*l.* (1,771 tons, 10,775*l.*); and sundry chemicals, 154,444*l.* (99,685*l.*).

Heavy Chemicals.

[These prices are for market-centres other than London.]

If anything, the heavy-chemical market has taken a still firmer tone since the date of last writing, and the prevailing tendency as regards prices certainly continues to be in an upward direction. Manufacturers are very busy in spite of the fact that new orders are scarcely so plentiful as they were. Still, the required deliveries against existing orders and contracts are quite sufficient to cause stocks to remain very low.

ALKALI-PRODUCE.—Products under this heading remain much as lately reported. Caustic soda is still very scarce, and for some ports higher figures by 10*s.* per ton are being asked. Bleaching-powder, soda crystals, and soda ash are all in good demand, and keep very firm at fully-maintained prices. Chlorates firm—potash at 4½*d.* to 4¾*d.* per lb.; and soda 4¾*d.* to 4¾*d.* per lb.

SULPHATE OF COPPER higher, at 24*l.*; **Liverpool**, 25*l.*
SULPHATE OF AMMONIA quietly steady. Exports from Leith last week amounted to 467 tons.

PHOSPHORUS without alteration—wedges, 2*s.*; sticks, 2*s.* 1*d.* per lb.; amorphous, 2*s.* 6*d.* per lb.

SULPHOCYANIDES are moving more freely at unchanged figures—potassium, 7*d.*; ammonium 95 per cent., 6*d.*; and barium 95 per cent., 4½*d.* per lb.

BROWN ACETATE OF LIME is higher again owing to scarcity, and now stands at 6*l.* 12*s.* 6*d.* to 6*l.* 17*s.* 6*d.* per ton.

SAL AMMONIAC remains unchanged, and first and seconds are respectively 40*l.* and 38*l.* per ton.

LEAD SALTS.—Unchanged, but the demand is better. Sugar of lead, white, 24*l.* 10*s.* per ton, less 2½ per cent. Glasgow. Sugar of lead, brown, 19*l.* 15*s.* per ton, less 2½ per cent. Glasgow. Nitrate of lead, 23*l.* 10*s.*, less 2½ per cent. Glasgow.

BORAX and **BORACIC ACID** meet with heavier inquiry. Borax, crystals, 16*s.* 6*d.*; powdered, 17*s.* 6*d.* per cwt. Boracic acid, 25*s.* 6*d.* and 27*s.* 6*d.* per cwt. respectively.

CALCIUM CHLORIDE.—Higher at 2*l.* 15*s.* to 3*l.* per ton.

ALUMINA PRODUCTS keep moving well, and prices are very firm. White sulphate of alumina, purest makes and practically free of iron, 85*s.* to 90*s.* per ton in casks on rails, with customary allowances for bags or loose slabs. Crystal alum, 5*l.* 7*s.* 6*d.* to 5*l.* 12*s.* 6*d.*; lump in tierces, 5*l.* to 5*l.* 5*s.*; and loose lump, 4*l.* 15*s.* to 5*l.* Hydrate of alumina, of highest percentage, 11*l.* 10*s.* to 12*l.* per ton in casks. Bauwite, 60-per-cent. alumina, 17*s.* to 17*s.* 6*d.* per ton, f.o.b. Chloride of aluminium, 11*l.* to 12*l.* per ton, free on rails in barrels. Aluminate of soda, highest strength, Al₂O₃, 37*s.* 6*d.* to 40*s.* per cwt., according to quantity. Carbonate of alumina, 35*s.* to 37*s.* 6*d.* per cwt. Aluminous cake, 50*s.* to 55*s.* per ton. Aluminiferous, 45*s.* to 50*s.* per ton. Sewage alum, 47*s.* 6*d.* to 50*s.* per ton, free on rails.

Liverpool Drug Market.

Liverpool, February 21.

CASTOR OIL.—The market has steadily advanced during the week, the value of good Calcutta seconds in cases being now 3½*d.* per lb. To arrive importers are quoting considerably higher figures than prices lately ruling. First-pressure French and Belgian is firmly held at 3½*d.* to 3¾*d.*; second-pressure French, 3¼*d.* to 3½*d.*; and second sulphur French, 3*d.* per lb.

GUM ACACIA.—There is very little movement in Arabic descriptions, but 32 serons of Aden description have been sold at 32*s.* 6*d.* per cwt.

IRISH MOSS.—Good common has been selling in quantity from the quay at 10*l.* 10*s.* per ton.

QUILLAYA-BARK.—Firmly held at 13*l.* to 13*l.* 5*s.* per ton as in quantity.

BEESWAX, CHILIAN.—Good mixed grey and yellow is held for

7l. 5s. per cwt., 25 bags changing hands at this price. Stocks in the hands of importers are said to be much reduced. Gambier: The market has been cleared, 40 packages having been sold at 7l. per cwt.—an advance of fully 2s. 6d. per cwt.

HONEY (CHILIAN).—There has been more movement in this grade during the week, and sales are reported of 130 barrels Pile 1, at 24s. 6d., and 30 barrels Pile 2, at 23s. 6d. per cwt.

CHLORATE OF POTASH.—Is very firmly held at 4½d. per lb., and sales have been made in first hands at this price.

AFRICAN GINGER.—On the spot 30s. per cwt. is asked for good quality, and forward there are buyers at 25s. per cwt., but no sellers.

TURPENTINE.—Firmly held at 41s. 3d. per cwt., and in good demand.

CASCARA SAGRADA.—Firmly held at 25s. to 30s. per cwt., as in quality.

CANARY-SEED (TURKISH).—Good bright is held at 33s. per quarter, but the market is showing a slightly easier tendency.

SULPHATE OF COPPER.—Ninety-eight per cent. is now 25s. per ton, being 10s. per ton dearer, and owing to the strong position of copper, is expected to be dearer again next week.

German Drug Market.

Hamburg, February 20.

Business in drugs is very quiet, and limited to a few articles only.

ANISE, Russian, is steady at 40–41m. per 100 kilos.

BALSAM PERU is quiet at 13½m. and 13¼m. per kilo.

CAMPHOR (refined) is very firm, and has again advanced to 440m. per 100 kilos for spot delivery, and 450m. for delivery within three months.

COCAINE.—The manufacturers of pure cocaine have formed a convention and fixed the price at 550m. per kilo.; secondhand holders ask 2540m. per kilo. less.

COCA-LEAVES are easier at 320m. and 300m. per 100 kilos.

CEVADILLA-SEED is firm; supplies of the new crop are still wanting; spot delivery demands 95m. per 100 kilos.

ERGOT OF RYE is quiet at 530m. per 100 kilos.

CUMIN-SEED is firmer at 60m. per 100 kilos.; spot scarce.

MENTHOL unchanged at 19¼m. per kilo.

QUININE is very firm, the manufacturers again raised their prices 2m. per kilo., and now ask 49m. per kilo.

STAR ANISE is a little firmer, at 182¼m. to 185m. per 100 kilos.

SPERMACELE.—Easier, at 29m. per 100 kilos.

WAX, CARNAUBA is very firm and rapidly advancing; 140m. per 100 kilos, has been paid for good grey quality, and 150m. is asked for further lots, while good yellow is held for 170m. per 100 kilos.

WORMSEED is firmer, at 60m. per 100 kilos.

OILS.—Cod-liver oil is unchanged and quiet. Linseed rapidly advancing. Castor rising, first-pressing, 7 barrels, 60m. per 100 kilos. All essential oils are quiet and unchanged.

Sicilian Market.

Our Messina correspondent, writing on February 13, reports that the market for concentrated lemon-juice is still rising. To-day the quotation is 435 lir., equivalent to 16l. 2s. 3d. per pipe, at Messina. The essential-oil market, on the contrary, is very inactive, the only remarkable fact being that the price of orange oil has rapidly declined, while all dealers were confident of a still further advance. To-day's prices are as follows:—Lemon, 3s. to 3s. 3d. per lb.; sweet orange oil, 6s. to 6s. 2d.; and bergamot oil (38 per cent. linalool ester), 6s. per lb., c.i.f. London, in usual coppers of 10 lbs. upwards.

American Drug Market.

New York, February 13.

Business is mainly of a routine order but of good volume in the aggregate, and the market maintains a steady undertone:—

OPIMUM is easier, in sympathy with advices from primary sources. Quotations have declined to \$3.10 for case lots.

QUININE maintains its strong position, and manufacturers and second-hands are both cautious in their operations.

BUCHU-LEAVES.—"Short" are in good demand and can be bought as low as 27c. per lb., with 30c. asked for prime quality. Long buchu are steady, at 28c. to 28c.

ERGOT is strong, with an upward tendency. Russian is firmly held at 65c., and Spanish at 90c. to \$1.10.

IPPECACUANHA (RIO).—In sympathy with the decline in the London market, spot-quotations have been steadily reduced and prime Rio can be bought at \$3.0 per lb. Inferior grades can be had at less.

OIL, WINTERGREEN.—Natural oil is easier and quotations have reached to \$1.90.

SPERMACELE is easier. Block is obtainable at 29½c. and cakes at 30½c.

COCA-LEAVES.—Truxillo are unsettled and can be bought at from 23c. to 25c.

CINCHONIDINE has sold heavily, at 27c. to 28c. per oz., and manufacturers quote 23c. to 30c. Supplies in second-hands are exhausted, and the tendency is to a higher market.

MENTHOL has declined to \$2.75.

TANNIC ACID is scarce, and quotations have advanced to 77½c. per lb.

SERPENTARIA is firmer, and holders ask 37c. to 33c. per lb. for prime quality rhizome.

Japanese Market.

Yokohama, January 25.

The year has opened with a good business and bright prospects. Since my last report the tendency of prices is still upward, owing to the higher advices from Europe.

In export articles peppermint has declined to 6.00 yen per catty for crystals and 2.25 yen per catty for oil. This is owing to poor demand, and there are holders who will sell at slightly less than the above figures. Ginger is very firmly held, and a good business has been done, at 11 yen to 11.20 yen per picul for export to London and Bombay; holders now quote 12 yen. Crude iodine has been selling at 3.80 yen per lb.; about 1,000 lbs. have been exported to Europe this month. Iodide of potassium is quoted at 3.70 yen per lb. for P.J. H. quality, with a higher tendency. Bleaching-powder is in good demand for both home and export, and makers are busily engaged; 5.50 yen per 100 lbs. is the quotation. The demand from the Chinese coast seems to have increased greatly of late.

Cablegrams.

BERGEN, February 22, 11.35 A.M.:—The weather generally is fine and favourable to the prosecution of cod-fishing. The catch to date is 2,231,000 fish, against 1,428,000 last year, which will yield 2,450 barrels of unrefined oil, against 1,370 last year at this date. The market is rather slow, and the price for steam refined non-congealing medicinal oil is 65s., f.o.b. Bergen.

* * * *

HAMBURG, February 22, 12.58 P.M.:—Lycopodium, refined camphor and castor oil are all firmer in price. Carnauba wax is advancing; good grey is now 150m. per 100 kilos., and yellow is 190m. per 100 kilos.

* * * *

NEW YORK, February 22, 2 P.M.:—The market here is active. Quinine has advanced to 35c. per oz., with the prospect of still higher prices. Cinchonidine is also a strong market at 32c. Rio ippecacuanha is slightly firmer at \$3.00 per lb. Truxillo coca-leaves are also firmer, and in better demand at 23c. per lb. On the other hand Mexican sarsaparilla is irregular, and again slightly easier at 7½c. per lb. Opium is quite inactive at \$3.05 per lb., and the tendency is lower. Both Tinnevely and Alexandrian senna leaves are lower, at 8c. and 10c. per lb. respectively.

London Markets.

ACIDS, CITRIC AND TARTARIC, are both unchanged.

ALOES.—Another arrival of about 40 cases sun-dried "Uganda" aloes has taken place this week; they will be offered at the forthcoming drug-auctions. Socotrine have been in good demand, about 40 kegs of fine hard bright selling at 75s. per cwt. Fine hard Cape is still held for 30s. per cwt., and an offer of 29s. has been refused. About 43 cases have arrived this week from the Cape.

ARROWROOT.—Dearer. St. Vincent sold on Wednesday at 4½d. per lb., but the bulk was bought in at 4½d. per lb.

BENZOIN.—Since the auctions there has been a fair inquiry for Sumatra, Siam, and Palembang descriptions at firm prices. The business done includes good Sumatra seconds, storax flavour, at 8l. per cwt. (7l. 17s. 6d. refused in auction), and fair ditto at 7l. Part of the 45 cases Siam offered last week have also been disposed of. Of the low Palembang in cases, ex-auctions, about 20 cases have been sold at 30s. per cwt. A considerable business has been done in Palembang gum of late on private terms, about 250 cases changing hands, it not having been found necessary to offer the goods publicly. From Amsterdam we hear that there has been a fair demand, sales of good Sumatra seconds having been made at 65c. to 90c. (1s. 1d. to 1s. 6d.).

BROMIDES have advanced 1d. per lb., makers now quoting 1s. 10½d. per lb. in ½-ton lots and upwards.

CAMPHOR.—German refiners announce an advance of $\frac{1}{2}d.$ per lb. this week, now $2s. 0\frac{3}{4}d.$ per lb. for ton lots. This is owing to the fact that they have had to pay higher prices for crude of late. On the spot there are second-hand sellers of German refined, at $1s. 11\frac{1}{2}d.$ in ton quantities. Towards the close of last week there was more inquiry for crude, Chinese near at hand, selling at $164s. 6d.$ to $165s.$ per cwt., c.i.f., and later, $165s. 6d.$ to $167s. 6d.$ was paid for several hundred piculs. On Monday, $167s. 6d.$ was again paid for March-May shipment (100 piculs). In Japanese there are second-hand sellers at $175s.$, c.i.f., for February-March shipment. Today a small business has been done in Japanese at $180s.$ spot.

According to a Consular report issued this week, the exports of camphor from Hiogo and Osaka during 1898, were 1,434 tons (118,837*l.*), against 1,524 tons (132,472*l.*). Camphor oil, 368 tons (8,158*l.*), against 648 tons (18,435*l.*).

CHAMOMILES.—A fair business has been done this week at from $88s.$ to $90s.$ per cwt. spot.

CINCHONA.—At the London auctions on Tuesday, the moderate quantity of 2,129 packages was offered by nine brokers, and a good proportion sold at or after the auctions. There was a brisk demand, and prices again advanced, the average unit of quinine being $2d.$, against $1\frac{1}{2}d.$ at the previous London auctions, or about 5 per cent. higher than the Dutch auction last week. Cinchonidine-bark averaged $2\frac{1}{2}d.$ per unit.

The following table shows the quantity offered and sold publicly:—

	Packages offered.	
East Indian cinchona ...	1,252, of which 702 were sold.	
South American cinchona ...	560	189
Ceylon cinchona ...	228	136
Java cinchona ...	89	63
	2,129	1,090

The following were the approximate quantities purchased by the principal buyers:—

	Lbs.
The Brunswick factory ...	61,515
The American and Italian factories ...	52,835
The Mannheim and Amsterdam factories ...	43,722
Messrs. Howards & Sons... ..	31,882
The Frankfort and Stuttgart factories ...	15,059
The Imperial quinine-factory ...	13,463
Druggists, &c.	17,836
Total quantity of bark sold ...	236,303
Bought in or withdrawn ...	207,959
Total quantity of bark offered ...	444,262

The following prices were paid:—

CEYLON.—Ledgeriana branch, $2\frac{1}{4}d.$ Succirubra, good rich chips and shavings, $10\frac{1}{2}d.$; good ditto, $4\frac{1}{4}d.$ to $5\frac{1}{2}d.$; ordinary to fair, $3\frac{3}{4}d.$ to $3\frac{1}{2}d.$ per lb.

JAVA.—Ledgeriana stem chips, $8\frac{1}{4}d.$ to $9d.$; ditto branch, $5d.$ to $6\frac{3}{4}d.$; root, $5\frac{1}{2}d.$ per lb.

SOUTH AMERICAN.—Bolivian cultivated Calisaya quill, $7\frac{1}{2}d.$ to $9\frac{1}{2}d.$; rich, $10\frac{1}{2}d.$ to $11\frac{1}{2}d.$; flat, damaged, $6d.$ to $8\frac{1}{2}d.$ Soft Columbian, good quilly chips, of new import, $10\frac{3}{4}d.$; old, $3d.$ to $6\frac{1}{2}d.$

EAST INDIAN.—Ledgeriana, branch, $3d.$ to $5\frac{1}{4}d.$; stem chips, &c., $4\frac{1}{2}d.$ to $4\frac{3}{4}d.$; fine, $6\frac{3}{4}d.$ to $7\frac{3}{4}d.$; one lot, $9d.$; good Ledger root, $6d.$; Hybrid stem chips, $3\frac{3}{4}d.$ to $4d.$ Officialis: Renewed stem chips and shavings, $9\frac{1}{2}d.$; root, $8\frac{1}{2}d.$; very rich, $7\frac{1}{2}d.$ to $8\frac{3}{4}d.$; fine, $6\frac{1}{2}d.$ to $6\frac{3}{4}d.$; good, $4\frac{1}{2}d.$ to $5\frac{1}{2}d.$; and ordinary to fair, $3\frac{3}{4}d.$ to $4\frac{1}{2}d.$ per lb.; branch, $2\frac{1}{4}d.$ Red stem chips, &c., poor $2\frac{3}{4}d.$; ordinary to fair, $3\frac{1}{2}d.$ to $4\frac{1}{2}d.$; good, $5\frac{1}{2}d.$ to $5\frac{3}{4}d.$; root, $2\frac{1}{2}d.$ to $2\frac{3}{4}d.$; fair, $4\frac{1}{4}d.$ to $4\frac{3}{4}d.$; and renewed, $9\frac{1}{2}d.$ per lb.

The exports from Ceylon for the week ending January 29 have been 4,347 lbs. The total from January 1 to 29 has been:—

Lbs.	1900	1899	1898	1897
	4,347	16,164	66,101	16,273

COCOA-BUTTER.—The auctions to be held in Amsterdam on March 6 will consist of 70 tons Van Houten's, 10 tons Helm, 4 tons De Jong, and 5 tons Mignon, while on the same date at London 100 tons Cadbury's will be offered.

CREAM OF TARTAR.—In fair inquiry. First white crystals are quoted $73s.$ per cwt., and powder $75s.$; 95-per-cent. powder, $76s.$; 98-per-cent. B.P., $79s.$ to $80s.$ per cwt.

DRAGON'S-BLOOD has been in good demand since our last report. The two cases of fine picked lump which have been on hand for some time were sold privately last week at, it is said, $21*l.*$ per cwt. A case of good bright lump, for which

$14*l.*$ 10*s.* was refused in sale, has since been sold. Two other small lots, amounting to 4 cases, have also been sold at from $8*l.*$ and upwards for ordinary lump.

ERGOT has been in more inquiry this week, and a sale or two of Russian is reported at $2s. 11d.$ to $3s.$; for arrival good current quality is quoted $2s. 5d.$, c.i.f. Good Spanish is worth about $3s. 3d.$ spot.

FERRI ET QUIN. CIT. has been advanced to $8\frac{1}{2}d.$ in ounce vials and $7\frac{1}{2}d.$ in 25-oz. tins.

GUM GUAIACUM.—The market has been practically cleared of fine gum since the auctions, about 5 cases having been sold at the importer's limits. The 5 barrels of low drossy block offered last week have also been disposed of at $2\frac{1}{2}d.$ per lb.

GAMBOGE.—Quiet, and inquiries prove that no business has transpired of importance since the auctions.

GLYCERIN.—Very firm at $56*l.*$ per ton for English double-distilled, s.g. 1.260, from makers.

GUM ARABIC.—Soudan sorts have been in more inquiry this week, fine soft selling at $80s.$ per cwt., and good hard at $66s.$ to $66s. 6d.$

GUM TRAGACANTH.—A steady business is passing at full values. Small sales of fine Bussorah hog gum have been made at $80s.$, and seconds at $50s.$ to $55s.$ per cwt. Syrian has also sold at $38s.$

IPECACUANHA.—Immediately after the auctions last week the bulk of the Cartagena root offered was practically cleared, one parcel of about 15 bales being sold at a shade under $7s. 3d.$, which was the limit. Since then the holders have advanced their quotation to $8s.$ per lb. Rio has also been in demand, $11s.$ having been paid by several buyers for small lots. About 15 packages of Cartagena have arrived this week in cases.

LIME-JUICE.—Slightly easier, there being sellers of West Indian unworked at $2s. 6d.$ to $2s. 9d.$ per gal.

MENTHOL.—Quiet, with spot sellers at $9s.$ per lb; for arrival cablegrams from Japan to hand to-day quote the extreme figure of $9s. 10\frac{1}{2}d.$ c.i.f. About 20 cases have arrived this week, but these are understood to have been sold.

OIL, CAJUPUT.—On the Amsterdam market 202 bottles of good green quality are offered at $1.50*f.*$ ($2s. 6d.$) per bottle.

OIL, CLOVE.—Again higher, English-drawn oil having been advanced $2d.$ per lb. in consequence of the advance in cloves; $2s. 8d.$ per lb., with the usual reduction for quantity, is now quoted.

OIL, COD-LIVER.—The tendency is slightly easier this week, the quotations ranging from $64s.$ to $65s.$ per barrel, c.i.f., for finest medicinal oil. There is little inquiry so far.

BERGEN, February 17.—The latest reports from the fisheries have proved a great disappointment. Notwithstanding exceptionally fine weather, and the best of prospects, the catch of cod has been small so far both at Lofoten proper and at the outlying fishing places. The statistics to date show a catch of 1,380,250 cod, against 1,089,700 at the same time last year, when the weather was bad and stormy and sometimes several days passed without the fishermen leaving the shores. The protracted cold weather has probably influenced the catch, as the cod are still supposed to be in too deep water. It is yet too early to predict what the final result will be, and there is so far practically no change in the market; the last quotation for Lofoten non-congealing oil is $65s.$ per barrel f.o.b. The exports to date are 558 barrels, against 797 at the same time last year.

OILS, FIXED.—*Linseed* firmer at $24s. 10\frac{1}{2}d.$ in pipes at water side, landed $25s.$; barrels $24s. 10\frac{1}{2}d.$ to $25s.$ *Rape* unchanged, spot $25s. 6d.$, refined $27s.$; Ravison $23s. 9d.$ *Cotton* quiet at $23s. 6d.$ to $24s.$ for refined in casks. *Cocunut* Ceylon, pipes $25s. 9d.$; Cochin $29s.$ *Palm*, fine Lagos $28s. 6d.$ *Turpentine* $40s. 3d.$ per cwt. for American, spot. *Petroleum* steady; water-white American $8\frac{1}{2}d.$ to $8\frac{3}{4}d.$ per gallon, Russian $6\frac{1}{2}d.$ to $6\frac{3}{4}d.$ spot.

OIL, PEPPERMINT.—American H.G.H. is quiet, with sellers at $5s. 3d.$ in 5-case lots. Dementholised Japanese is $3s. 9d.$, and 40 per cent. $6s.$ spot, small sales being reported at the latter figure.

OILS, SICILIAN.—Quiet, with a lower tendency, at the following prices, which are for finest brands:—*Lemon*, $3s. 1d.$ per lb. c.i.f., *Bergamot*, $6s. 6d.$ and *Sweet Orange* $7s.$

OPIMUM is a dull market for manufacturing and "drug-gists'" kinds, with small sales of "soft-shipping" at full rates. Persian is also quiet and unchanged, at 12s. 9d. to 13s. per lb.

SMYRNA, February 9.—Another quiet week has passed, sales amounting to 7 cases only. Reports received from all parts of the interior give a most favourable account of the crops, owing to the gentle, but continued, rainfall of the past two months; until the end of March, however, nothing definite can be said. The arrivals are 2,456 cases, against 1,228 cases last year.

POTASH PERMANATE is reported firmer from the Continent this week. There are sellers here at 48s. per cwt. ex wharf for small crystals.

QUICKSILVER.—Very firm at 9d. 12s. 6d. per bottle from importers or second-hand sellers.

QUININE.—At the close of last week there was considerable animation in the second-hand market, and prices advanced quite $\frac{1}{4}$ d. per oz. The business done (estimated at about 150,000 oz.) included spot at 1s. 6 $\frac{1}{2}$ d.; March 1s. 6 $\frac{1}{4}$ d. to 1s. 6 $\frac{1}{2}$ d.; May 1s. 6 $\frac{3}{4}$ d. to 1s. 6 $\frac{3}{4}$ d., and June delivery 1s. 6 $\frac{1}{2}$ d. This week, however, market has been quieter, and prices have dropped about $\frac{1}{4}$ d. to $\frac{3}{4}$ d., business being done on Wednesday at from 1s. 5 $\frac{1}{2}$ d. to 1s. 6 $\frac{1}{2}$ d. for March, 1s. 6 $\frac{1}{2}$ d. to 1s. 6 $\frac{3}{4}$ d. for May, and 1s. 6 $\frac{3}{4}$ d. per oz. for June delivery. To-day the market is again easier, there being sellers for March delivery at 1s. 6d., and May at 1s. 6 $\frac{1}{2}$ d. The feature of the week has been the official advance of 1d. per oz. by the German makers, who now quote 1s. 6d. per oz. nominally for 1,000-oz. lots of sulphate, but it is understood that they are not sellers at this figure, 1s. 6 $\frac{1}{2}$ d. being the lowest at which they will do business in small quantities to regular consumers only. Howards have also advanced their quotation to 1s. 8d. in 100-oz. tins, and 1s. 9d. in 1-oz. vials for not less than 1,000-oz. lots. Whiffen's is now 1s. 6 $\frac{1}{2}$ d. in 100-oz. tins. Salts of quinine have also risen.

A direct arrival of 211 cases Java quinine has taken place this week per ss. *Duke of Buckingham*.

SENNA.—Quiet. In Alexandrian small sales of leaf have been made at 7d. per lb.

SHELLAC.—Previous to the auctions a moderate business had been done, chiefly on the spot at 62s. per cwt. for fair orange TN; March delivery also sold at 62s. At auction on Tuesday 901 cases Second orange offered of which about 700 found buyers mostly "without reserve," at somewhat irregular prices, TN being unchanged at 62s.; Button declined 4s. The following prices were paid:—

Good bright cakey, 63s. to 64s.; fair bright flat free, 61s. to 62s.; good curly red, 61s. to 62s.; fair reddish, 61s.; curly cakey reddish, 61s. to 62s.; hard liver block, 56s. to 58s. per cwt. Button, weak ordinary seconds, 59s.; blocky firsts, 60s. to 61s. per cwt.

SPICES.—Business has been rather quieter this week, with little change in values. Cochin *Ginger* is firm. In auction a consignment of new crop cut was bought in, the limits being above the present market value. Washed rough Calicut partly sold at 34s. per cwt.; a bid of 31s. for good washed rough Cochin was refused. Bengal is dearer at 23s. per cwt. A good business has been done this week in Japan ginger at 24s. to 25s. per cwt. according to quality. Jamaica partly sold at 51s. to 53s. per cwt. for common to middling. Zanzibar *Torres* have fluctuated a good deal within narrow limits; dark to fully fair sold on Wednesday at 4 $\frac{1}{2}$ d. to 4 $\frac{1}{4}$ d. per lb.; June-August delivery is quoted 4 $\frac{1}{4}$ d. to 4 $\frac{5}{16}$ d. per lb. Penang were bought in at 8d., and common Amboyna at 5d. per lb. *Clare-stems* were withdrawn at 1 $\frac{1}{2}$ d. per lb. *Chillies* were bought in at 47s. per cwt. for ordinary Zanzibar. *Capscicums* were in large supply, and only a few lots sold, good red but rather mixed dark East India at 32s. 6d. to 33s. per cwt.; 35s. being refused for fine. Natal were bought in at 100s. a bid of 97s. being declined. *Pimento* slightly dearer, the parcels offered were firmly held, bids of 3 $\frac{1}{2}$ d. not resulting in business. *Cassia-liqua* partly sold at 44s. for new; but old quality was bought in at 50s. per cwt. *Pepper* is quiet; all the lots in auction were withdrawn. Singapore black is quoted 6 $\frac{1}{2}$ d., Singapore white 9 $\frac{1}{4}$ d., and Penang white 8 $\frac{1}{16}$ d. per lb.

SULPHUR.—The following quotations are to hand from Messina this week:—Best seconds 78s. 6d., thirds ditto 74s. 6d. per ton of 13 cantars, f.o.b. Ground seconds 83s. to 88s. Refined in bulk 84s., in bags 87s. 6d., rolled in casks

89s., and flowers 90s. 6d. per ton of 1,015 kilos. f.o.b. Messina. Prices in Sicily remain firm, but it is difficult to transact business owing to buyers holding off, and the tenacity of the Anglo-Sicilian Sulphur Company. The exports in 1899 show an increase of 34,332 tons, principally absorbed by Italian consumers. Stocks on December 31 last were estimated at 3,503,880 cantars against 3,089,888 in 1898.

Foreign Steamship Enterprise.

It is proposed by shipping interests and capitalists in Antwerp, Dunkirk, Havre, and Paris to establish a new and important shipping line between the first three ports, Eastern Asia, and China. The capital has been fixed at 12,000,000fr., of which one-half will be raised in Belgium, and the other half by the Banque Industrielle et Coloniale, of Paris.

Recent Patents.

THE following are abstracts of complete specifications recently published, of inventions for which letters patent have been granted. Money order offices sell postcards, price 8d. each, which, on filling up with the number and year of the patent and posting, secure a copy of any complete specification.

Washing and Cleansing Compound.—A. Kurten, Solingen, Germany, patents the following for cleaning, bleaching, and disinfecting fabrics at the same time, without scouring being necessary and without attacking the fibres and fast colours:—

Phenyl hydride	...	...	...	55 to 60 parts
Terebene	...	...	...	35 to 30 parts
Ammonia	...	...	...	1 to 25 parts
Triolein	...	...	...	8.75 parts

(18,439, 1899.)

Filling for Wood.—John Gibbs, Halstead, has procured a patent for the following mixture for filling the pores of wood before polishing:—

Shellac, methylated spirit, linseed oil	...	...	...	6 parts
Ground alum	...	...	...	1 part
Plaster of Paris	...	...	...	2 parts
Whitening	...	...	...	4 parts

The whole of the ingredients are stirred together, and the mixture is ready for use at once. Polishing can be started as soon as the composition has been applied. (21,220, 1899.)

The *Medical Press and Circular* does not print the report of the Irish Pharmaceutical Council meeting, but the Registrar's covering letter accompanying it, with the following editorial footnote:—

We trust it will not be considered disrespectful to say that, as we have already twice pointed out that we never made the statement herein attributed to us [that pharmaceutical chemists are incapable of dispensing minute doses], we think it unnecessary to repeat the disclaimer now. We submit that the Council of the Pharmaceutical Society might advantageously have—by inspection of our columns—acquainted itself with what we did say before sending us this communication.

We take this to mean that our contemporary is sorry it spoke, which it does rather loudly now and then, and wants to forget about it.

THE LONDON BOTTLE EXCHANGE.—On Thursday afternoon, at the Hotel Cecil, Strand, the fourteenth annual meeting of the Mineral-water Bottle Exchange and Trade Protection Society was held. Mr. E. S. Crick (Barrett's Brewery and Bottling Company, Limited) presided. The report presented by Mr. Walter Davenport (Secretary) showed that the year's operations had been most satisfactory, and that, though the Society does not exist for profit-making, it had protected its members in various ways, and at the same time made a profit of over 200l. In 1893 the Society recovered from other sources than members 233,124 dozen bottles. Last year the total under this head was only 80,876 dozen bottles, thus proving that it was more and more difficult for mineral-water makers to act dishonestly by using other people's bottles, boxes, and casks. Mr. E. S. Crick retired from the presidential chair after five years of service, and received thanks for the able manner in which he had conducted the principles and objects of the Society.

Medical Cleanings.

FOR MEASLES.

It is said that good results have been obtained in measles by rubbing the body with a salve morning and night consisting of—

Ichthyol	...	...	...	460 gr.
Lard	...	...	...	3 oz.

Only one or two rubbings seem to be necessary to reduce the temperature to normal. The results are completed in four or five days, after which a warm bath removes what is left of the salve.

BROMIDE OF STRONTIUM IN EPILEPSY.

DR. CULLINAN, of Pontymister, in giving his experience in the *Lancet* of the various bromides in the treatment of epilepsy, finds bromide of strontium far more effectual than potassium, sodium, or ammonium. Its sedative action is well marked, it causes but slight, if any, disturbances of the gastric functions, and appears to have a tonic effect on the nervous system. Dr. Cullinan finds 10 gr. of borax with each dose of the bromide an adjunct to the treatment, although the borax may cause a low form of gastritis if continued for a time.

THE BRONCHO-PNEUMONIA OF MEASLES.

IODOFORM has been used in this complaint in the following form:—

Iodoform	...	...	...	7½ gr.
Cod-liver oil	...	...	...	3½ oz.
Oil of aniseed	...	...	...	30 mins.

The initial dose is two teaspoonfuls per day, gradually increasing up to the point of rejection by the stomach. Inhalations of a mixture of iodoform and turpentine are combined with the internal treatment.—*Practitioner*.

TREATMENT OF BURNS.

ICHTHYOL is efficacious in burns of the first and second degrees. It allays the pain at once, and slight superficial burns heal rapidly. It is used dry, diluted with zinc oxide or bismuth (the powder being spread evenly over the surface), in ointment (10 to 30 per cent.), or as a combination of both methods. The zinc-oxide powder may be combined as follows:—

Zinci oxidi	...	...	...	5v.
Magnes. carb.	...	...	...	3ij.
Ichthyol.	...	...	...	3ij.

M.S.A.

The paste as under:—

Calcii carb.	...	...	...	3j.
Zinci oxidi	...	...	...	3ss.
Ol. olivæ	...	...	...	3j.
Aquæ calcis	...	...	...	3j.
Ichthyol.	...	...	...	3j.

M.S.A.

—*Monat. f. Prak. Dermat.*

FANGO TREATMENT.

THIS cure has been carried out for years past in the Italian mud-baths at Battaglia. Fango differs in its method of preparation from ordinary medicated muds. It is not mixed with warm water to a pasty consistency, but is allowed to absorb the water by being placed in large tanks constructed for the purpose. The mineral mud retains its curative qualities for an indefinite time, and can be exported ready for use. In cases where the hand or foot is to be treated, the patient plunges the part into a vessel filled with hot Fango (40° to 55° C.). When, however, Fango has to be applied to other parts of the body, it should be wrapped up in blankets so that the heat is not allowed to evaporate. The time occupied by the treatment varies from half an hour to an hour and a half. After removal of the mud the part must be washed with lukewarm water, followed by a douche. The treatment is chiefly indicated in certain joint-diseases, especially rheumatism and gout.

ETHYL-BROMIDE ANÆSTHESIA.

ETHYL BROMIDE is recommended as a general anæsthetic in short operations, especially for children. It must not be mixed with atmospheric air, such admixture being dangerous. The method used by Dr. Chisholm, of Baltimore, is to fold a towel in the shape of a cone, covering the outside with paper to make it impervious: ethyl bromide varying in amount from 1 dr. to 2½ dr. for children, and from 2 dr. to 3 dr. for adults, is then poured in, and the cone applied so as to cover both nose and mouth, and not removed until full anæsthesia is induced.

RECURRENT SNEEZING AND NASAL CATARRH.

A WRITER in the *Indian Medical Record* speaks very highly of the use of tincture of stramonium in this complaint. He says 15 minims of the tincture will at once stop the sneezing and catarrh if taken at the very commencement of the attack. In other cases the dose may have to be increased to 20 or 30 minims as the patient becomes tolerant of its action, and it may have to be repeated two or three times. Seldom are more than three doses required. Belladonna, which is physiologically allied to stramonium, does not have a like action in this particular condition.

EUPHTHALMIN.

EUPHTHALMIN is the newest mydriatic. It is the hydrochloric-acid salt of *n*-methyl-vinyl-diacetone-alkamine, and occurs in the form of a white crystalline powder, which is very soluble in water. A 5-per-cent. solution of euphtalmin, which is the usual strength, does not act so rapidly as a 1-per-cent. solution of homatropine, but is equal to it in the extent to which it dilates the pupil. The preliminary installation of a drop of a 1-per-cent. solution of holocaine into the eye increases the rapidity of the mydriatic action of the euphtalmin: it then produces a maximum dilatation in about twenty minutes. The effects of the drug pass off quickly, vision becoming normal in from an hour and a half to two hours.

IRON AS A BLOOD-FORMER.

HOFFMANN has been continuing his investigation on the absorption and excretion of iron, and, as the results of experiments on rabbits, finds that all forms of iron were absorbed in the duodenum and enter the circulation in transport cells combined with albuminous matter in a combination which has no toxic action. He states that special preparations of iron are unnecessary, of hæmoglobin irrational, and that the action of iron depends entirely upon the quantity of metal absorbed. These conclusions were arrived at after trying various preparations of iron and hæmoglobin, counting the blood-corpuscles and estimating the hæmoglobin of the bone-marrow, spleen, and lymphatic glands as especially concerned in blood-formation, as well as the liver, kidneys, and intestines.

INJECTION-TREATMENT OF TUBERCULOSIS.

DR. MENDEL has published his method of treating tubercular diseases by means of inter-tracheal injections. The solution he uses is:—

Essence of thyme	...	...	5 grammes
Essence of eucalyptus	...	...	5 grammes
Essence of cinnamon	...	...	5 grammes
Sterilised olive oil	...	...	100 c.c.

To this solution may be added—

Iodoform	...	...	5 grammes
Bromoform	...	...	0.05 gramme

Three c.c. of the solution are injected at a time into the tracheal duct, three or four times consecutively, daily. The patient holds his tongue outside his mouth between the finger and thumb by means of a napkin. The needle of the syringe is then inserted behind the tongue, and the fluid injected. If the whole of the solution is successfully injected into the tracheal duct the patient experiences a feeling of warmth, but if any is spilled on the epiglottis or the entrance of the larynx it returns to the mouth and the patient spits it out. The treatment does not cause any coughing. Dr. Mendel has so far treated twenty-four cases, and in each case has obtained good results.

The Companies Bill.

Letters to M.P.'s.

THE following are specimens of the letters which *C. & D.* subscribers suggest should be sent by chemists and druggists to their members of Parliament regarding the Companies Acts Amendment Bill introduced by the Government. We suggest that one of these letters, or suitable portions of any of them, should be written and sent with the statement contained in last week's CHEMIST AND DRUGGIST (following page 310). Additional copies of the statement may be obtained on application to the Editor:—

re COMPANIES ACTS (AMENDMENT) BILL.

SIR,—The Companies Bill introduced by Mr. Ritchie contains in Clause 2 proposals respecting pharmacy, and I trust that, as our representative, you will be in your place and oppose the clause both by vote and influence. Chemists and druggists are, as a body, antagonistic to this clause on the following grounds:—

1. The State has made it compulsory that the sale of poisons should only be conducted by duly-qualified chemists. This clause would place the power of sale in the hands of any body of unqualified men.

2. It would be a breach of contract with those persons who have been to great expense in qualifying to have the remunerative portion of their profession taken from them.

2. It is safer for the general body of the public that the sale should be made by duly-registered chemists.

4. Vested interests would be destroyed without compensation.

E. W. GAY.

SIR,—Chemists and druggists throughout the country are much concerned at the introduction into the Bill referred to above of a clause which permits companies of unqualified persons to conduct the sale of poisons and the work of general dispensing in such a way as seriously to prejudice the professional element in their business. In the case of the physician, surgeon, dentist, &c., this is fully recognised and conserved, and the failure to concede a corresponding degree of protection to the profession of pharmacy will not only do an injustice to an important section of the community, but must ultimately react prejudicially on the interests of the public.

On any other grounds it would be idle to expect to enlist the attention of a member of Parliament, who is not concerned to interfere with matters which are the legitimate subjects of trade-competition. The principle for which we contend, and that which is assumed in the Pharmacy Act of 1868, is that the prosperity of an important and progressive science like pharmacy cannot be entrusted to anyone in a subordinate position, even though qualified, and consequently that such parties should not be allowed to enter into competition with those who assume the active and responsible direction of their business and at the same time take a lively and intelligent interest in all that pertains to the advancement of this department of medicine.

The Pharmacy Act of 1868 has had an important influence in promoting the scientific attainments and general competence of members of the pharmaceutical calling, and the valuable assistance which they have hitherto rendered in the preparation of the national Pharmacopœia will soon be adequately recognised by the appointment of certain of their number to the Council entrusted with that work. Chemists also recognise how much remains to be done for the protection of the public, and in reinforcement of the above Act in connection with the irregular dispensing which is conducted in many surgeries and elsewhere throughout the country by illiterate and incompetent persons. We are both able and willing to render the State further important and special service; and, in short, a review of the whole circumstances would seem to suggest that suitable appreciation rather than depreciation of pharmacy is what might confidently be expected from an impartial Administration, and that the objectionable clause should be amended accordingly.

I am, Sir, yours faithfully,

C.

SIR,—The amendment of the Companies Act proposed by Mr. Ritchie is ostensibly to remedy a defect in the Pharmacy Act, in which the word "person," by an unfortunate legal quibble, is held not to include a corporate body, which, as such, cannot pass the necessary examinations.

But the amendment does not purpose to make a company equally liable with the individual to the penalties imposed by the Pharmacy Act; on the contrary, it makes it lawful for a company to do as a company that which the Act penalises in the individual—viz., the keeping of open shop for the sale of poisons, and the posing as skilled by using unearned titles—titles the right to

use which the individual can only get by study and experience and by satisfying the appointed board of examiners of his fitness to be trusted to perform the duties imposed by the Act.

Nor does the proviso of a qualified manager fully safeguard the public, since all that the law can enforce is the physical presence of such manager, if so much, and as the manager is but the servant and subject to the authority of employers who have not even the knowledge to see that he exercises his skill, and who may impose such restrictions on his freedom of action as to neutralise and make it of no effect, he is reduced to a mere lay figure to stand between them and the law. Nor can the law make the servant have authority of his master, and without authority how can the manager control the business?

Surely, then, if one unskilled drug-seller be a public danger, ignorance multiplied sevenfold cannot be less dangerous.

It is said that chemists wish to get a monopoly, but is it really a monopoly to restrict the practising of a profession where skill is requisite to those who possess the necessary skill, and to prevent those who have not such skill from posing as skilled persons? In regard to the legal profession it is not so held, and it is acknowledged to be at least an equal danger to the public welfare whether unskilled persons practise as individuals or as a corporate body the professions of medicine, dentistry, and midwifery.

And that skill is equally requisite and beneficial to the public welfare in the safe handling of dangerous drugs is proved by the great reduction in accidental poisonings which followed the passing of the Pharmacy Act, by which Act certain classes—to wit, chemists and druggists and pharmaceutical chemists—were produced, who have acquired the necessary skill, and who still perform their onerous duties in an adequately satisfactory manner, as is seen on comparing the low death-rate arising from the poisons under their supervision with the enormous death-rate from others which, like carbolic acid, are not legal poisons, and the sale of which is not safeguarded by any skill on the part of the vendors.

Nor do the duties of a pharmacist consist solely of supervising the sale of poisons. In every department of the art of pharmacy his skill is exercised for the public benefit, as in the selection of raw drugs, of which there are as many qualities as there are varieties of tea or of roses, and in many cases chemical-testing is necessary to distinguish the good from the utterly worthless; also in the manufacture of preparations of drugs, since by unskilled manipulation active principles may be dissipated or rendered inert.

How much more necessary, therefore, is skill in the compounding of physicians' prescriptions, where the health of the patient depends on that skill, and where even the order of mixing the ingredients may totally alter the character of the mixture, and have an effect quite contrary to that intended by the prescriber!

Nothing short of the full control of the chemist's legitimate business by skilled and thoroughly trained persons can adequately conserve the public welfare.

For these reasons, therefore, I trust that you will use your utmost endeavour to oppose Clause 2 in Mr. Ritchie's Bill, and, if a suitable opportunity occur, I trust that you will urge the inclusion of the profession of chemist and druggist and pharmaceutical chemist with the kindred professions of medicine, dentistry, and midwifery in Clause 3.

I am, yours truly,

J. A. CENTER.

OUR CIRCULAR TO M.P.'S.

During this week we have had a considerable number of inquiries from subscribers in various parts of the country for further copies of the statement which we circulated last week to members of the House of Commons, and part of which was included in last week's issue as a page to be removed and sent to members. We have had the complete circular reprinted as a letter, which chemists may sign and send to their parliamentary representatives. In addition to what was given in THE CHEMIST AND DRUGGIST last week, this circular contains a reprint of the speech on the Companies Bill made by the Lord Chancellor in the House of Lords on August 3, 1899, and a reprint of our suggested amendment of Clause 2. We shall be glad to send copies of the whole reprint to any subscribers who ask us for it. We may add that, in every case we have heard of in which the circular has been acknowledged by M.P.'s., they have written favourably in reply.

THE FEDERATION AND COMPANIES.

The Hon. Secretary of the Federation of Local Pharmaceutical Associations informs us that a meeting of the Executive Committee was held on Monday, February 19, when it was decided to oppose the Companies Bill by recommending local associations to interview their members

of Parliament upon one or other of the following resolutions as the local Associations may think fit:—

1. Protect chemists' titles, and make it legal for companies of unregistered persons to keep open shop for selling poisons as in the case of individuals.
2. Protect titles, and conduct the business with a qualified manager whose name shall appear in a prominent position.

Companies and Firms.

[About six months ago we mentioned that a Bill to amend the Pharmacy Acts had been privately prepared and circulated in Scotland, which had for its object the registration under the Acts of companies, firms, and other corporations trading in pharmacy. The principles of the Bill we are not at present concerned with, but we have always been curious to know why firms were treated as the legal equal of limited companies. We therefore welcome the subjoined communication from a solicitor in the Supreme Court of Scotland, who has studied what he calls the "new Pharmacy Bill," and gives an opinion on the bearing of partnerships towards the Pharmacy Acts. It has a significance at the present time, in view of the proposals contained in the Companies Bill, which makes the publication of this opinion opportune.—EDITOR.]

SINCE the memorable decision of the House of Lords in 1880 the shortcomings of the Pharmacy Act, 1868, in relation to company dispensing have been apparent, and many proposals, more or less promising, and all futile, have been made towards remedying them. Company dispensing and trafficking in poisons is too well established for any hope to be entertained of its abolition, and the framers of the new Pharmacy Bill, evidently recognising this, attempt to do what no doubt is the next best thing in the public interest: they seek to have established a special register which should contain the names of all companies and others of that category carrying on business as chemists—that is to say, all persons or bodies entitled either at common law or by statutory enactment to "keep open shop" without qualification and registration under the 1868 Act. This register, it is further proposed, should contain the name for the time of a manager, who should be a duly qualified chemist, suitably advertised as such, and who should be responsible for the due observance of the Pharmacy Act.

The logical development of the 1868 Act would be the qualification of directors, and in respect that the present Bill falls short of that, it will be held by many to be defective. It will be admitted, however, that it has for its general aim an improvement on the present state of the law.

There is one detail in the Bill which, innocent enough looking at first sight, is really of great significance, and may have effects reaching farther than the framers anticipate. It is the inclusion of "business firms" in the category dealt with.

It is understood that the framers were led to include business firms on account of the distinction which the law draws between these and corporate bodies. In law a company is itself a "person"—not, unfortunately, in the sense of the 1868 Act, but in the sense of its leading a corporate existence apart from the personalities behind it. The company "keeps open shop": the directors and shareholders do not. It is true that in Scotland a private firm is also "a legal person distinct from the partners of whom it is composed" (Partnership Act, 1890), but it is so in a very limited sense only, and in no way analogous to the "persona" of a corporate body. That being so, it was thought, and rightly, that without express mention, a private firm would not fall within the scope of the Bill.

Whether, however, there was wisdom or necessity in so including private firms is quite another matter. The motive of the Bill is to provide registration and registered manager-ship where the provisions of the 1868 Act applicable to keeping open shop do not apply. But it should be observed that the Act does at present apply to firms as fully in all respects as to single individuals; not in virtue of the firm's own "persona," which exists in *fictione juris* only, but because in actual fact a firm is nothing more than a name apart from the component partners. If the partners are qualified the firm is. The partners are "persons keeping

open shop," and are thus amenable to the Pharmacy Act, and it is immaterial under what combination of names, real or fanciful, they choose to be recognised. As partners of a firm they remain private individuals keeping open shop and requiring personal qualification; and it is only when they adopt the formalities of company-formation, and register their new body under the Companies Acts, that their business becomes a separate entity, and they themselves retire, in a pharmaceutical sense, into irresponsible obscurity.

Accordingly it would seem that the framers of the new Pharmacy Bill have exceeded their purpose in seeking to bring private firms under its proposed operation.

It does not necessarily follow that the passing of the Bill (I assume, perhaps unnecessarily, that it may reach the Legislature) would exempt partners of firms from the operation of the 1868 Act. The only immediate outward effect would be that firms would require publicly to notify the names of their "managers," a course of imaginary benefit to the public, and of absolutely none from the point of view of the Registrar, who at the present time records the partners as legally responsible for the observance of the Act.

The words of the first section of the new Bill are, however, suggestive, if not of the legality, at least of the moral sufficiency, of qualified manager-ship in the case of private firms, and it is more than possible that in course of time the observance by firms of the conditions proposed—that is to say, the registration of a qualified servant—would be held to be a sufficient protection even in their case against the penalties of the 1868 Act.

In that not unlikely event the only parties struck at by the 1868 Act, in the matter of "keeping open shop," would be single individuals, who would then have a grievance greater than ever against the anomalous condition of pharmacy-law. The remedy would then be obvious and final: it would be the extension to individuals of the privileges of companies and firms.

And this "remedy" is not perhaps improbable, for if the Courts or the Legislature, with the encouragement which this detail of the Bill would give, should some day place both companies and firms in the same pharmaceutical category, both exempt from the provisions of the 1868 Act so far as regards keeping open shop, it would pass the wit of man to devise a reason why single individuals should alone remain subject to that restriction. In other words, why should a single individual "keeping open shop" require personal qualification, if two such individuals—say, a father and son—could satisfy all the requirements of law by employing a qualified assistant? If at any time firms come to enjoy the privileges of companies, it would indeed be but one short step further to the removal of the restriction on the individual, and to that condition of things in which qualified assistantship is the one thing needful, and personal qualification is unnecessary in the master, whether he be a company, a firm, or an individual.

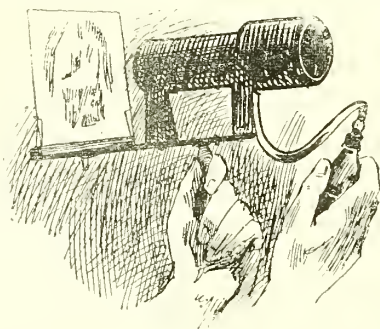
Whatever may be the ultimate remedy for present anomalies, the framers of the Bill are entitled to credit for their honest, if somewhat weak, attempt to put company-dispensing on a properly recognised legal basis. There is no reason, however, why the status of private dealing should be imperilled; and the classification of private firms with companies, the statutory ignoring of the personal element in private partnership, will, it is to be feared, imperil it in no slight degree. The true spirit of pharmacy will not long exist where servants are qualified and masters are not, and it does seem a pity that legislative encouragement, however slight, should be given to the extinction of the private pharmacist, to whom is due the present high standard of pharmaceutical excellence.

"ACTORS pass through many trying things and endure a great deal." "They must if they try half the patent medicines and things they recommend."—*New York Life*.

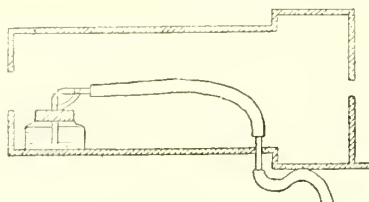
ADVERTISING IDEAS.—Better to cover a small territory thoroughly than a large one thinly and ineffectively. A long, loosely-constructed sentence fosters obscurity. Make your sentences too small to carry a double meaning. Change your style of advertising only when the style you have been using no longer brings results.

A Scientific Mystery.

DR. G. MICHAUD has recently devised an ingenious x-ray delusion for instantaneously reproducing in colour the interior of the human body. The apparatus consists of a tube, in which is concealed a spraying apparatus, the bottle containing a weak solution of ferric chloride. The paper,



placed as shown in the illustration, is previously prepared by outlining the position of the lungs with a diluted solution of potassium sulphocyanide, using a more concentrated solution to indicate the heart and principal arteries. A few of the veins are outlined with a solution of potassium ferro-



cyanide, and a more dilute solution serves to indicate the stomach and a few intestinal folds. The rest of the body is uniformly painted with a concentrated solution of tannin. The paper when finished is colourless, but when sprayed on by the solution of ferric chloride, reactions takes place which are familiar to all chemical students. The bulb of the spray is supposed by the spectator to be actuating a pneumatic shutter.

Coming Events.

Notices of meetings are inserted free in this section if received by the Editor not later than Wednesday of the week before the meetings are held.

Monday, February 26.

Pharmaceutical Society of Ireland, 67 Lower Mount Street, Dublin. Evening meeting at 8.15. Lantern-lecture: "Some Facts About the Distribution of Plants," by Mr. J. N. Laird.

Tuesday, February 27.

Royal Photographic Society, 66 Russell Square, W.C., at 8 P.M. Mr. W. Friese-Greene on "Electricity in connection with Photographic Action."

Bradford and District Chemists' Association, County Restaurant, Bradford, at 8.30 P.M. Mr. G. Ward on "The Physical Tests of the Purity of Drugs."

Wednesday, February 28.

Society of Chemical Industry (Nottingham Section), at 7 P.M. At Nottingham.

Public and Poor-law Dispensers' Association, St. Bride's Institute, Ludgate Circus, E.C., at 8 P.M. Mr. F. Davis on "Some Points in Practical Pharmacy."

Edinburgh Chemists', Assistants', and Apprentices' Association 36 York Place, at 9.15 P.M. "Gold and Gold-beating," by Mr. G. H. C. Rowland; "Notes on the Pottage Herbarium," by Mr. J. R. Hill.

Thursday, March 1.

Liverpool Pharmaceutical Students' Society, 6 Sandon Terrace Upper Duke Street, Liverpool, at 8.30 P.M. "Dispensing Notes," by Mr. H. Wyatt, jun.

Chemists' Assistants' Association, 73 Newman Street, Oxford Street, W., at 9 P.M.

Chemical Society, Burlington House, Piccadilly, W., at 8 P.M. Papers to be read:—"Pilocarpine and the Alkaloids of Jaborandi-leaves," by Dr. H. A. D. Jowett; "Isomeric partially Racemic Salts containing Pentavalent Nitrogen" (Parts I.-VII.), by Dr. F. S. Kipping; "New Synthesis of Indene," by Dr. F. S. Kipping and Mr. H. Hall; "Potassium Nitrito-hydroxymidosulphates and the Non-existence of Dihydroxylamine Derivatives" and "Identification and Constitution of Fremy's 'Sulphazotised Salts of Potassium,'" by Dr. E. Divers and Dr. T. Haga; "Some Acids obtained from α -Dibromocamphor," by Messrs. A. Lapworth and E. M. Chapman.

London College of Chemistry and Pharmacy. Students' smoking-concert at the Gauden Hotel, Clapham, at 8 P.M.

Friday, March 2.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, W., at 9 P.M. Major Ronald Ross on "Malaria and Mosquitoes."

Glasgow Chemists' and Druggists' Assistants' and Apprentices' Association, 100 West Regent Street, Glasgow, at 9.15 P.M. Dr. G. Coull on "Stereo-chemistry."

Saturday, March 3.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, W., at 3 P.M. "Polarised Light" (I.), by Lord Rayleigh.

The March Exhibition at the Royal Photographic Society's House will be by the National Photographic Record Association, and will be opened on March 7 by Sir Benjamin Stone, M.P.

The annual dinner of the Chemists' Assistants' Association is arranged for March 8 in the King's Hall, Holborn Restaurant. Tickets, 5s. each, may be had from Mr. C. J. Strother, 486 High Road, Chiswick, W., or Mr. H. Hymans, 34 Devonshire Street, Portland Place, W.

The annual supper of the Edinburgh Chemists' Assistants' and Apprentices' Association is to be held on March 7. Tickets can be had from Mr. J. Lennox, 139 Princes Street, Edinburgh.

WHITE SPOTS ON TABLE-TOPS, caused by hot vessels having been set thereon, may be obliterated by rubbing with paraffin and a woollen cloth.

NEW ADVERTISING.—Dig down to the roots of the matter. Dig down to the best points of the goods. Dig down for the best expression of these points. Dig down and study every side of advertising while you are about it. The era of big display-lines is fast giving way to an era of pictures. The object of a display-line is to make the ad. prominent and attractive. Both of these things are better secured by the use of a handsome picture.

"PHARMACEUTICAL UNREST" has caught the eye of *Merck's Report*, and in adding to our comments our contemporary says: "We in America have the cut-rate evil, the over-taxation evil, the long-hours evil, the small-profits, and, to the drug-clerk, small-pay, evil; all pressing upon us. The establishment of the National Retail Druggists' Association is an expression of our national unrest and of an attempt to correct these pressing evils."

WIDAL'S TEST FOR TYPHOID FEVER depends upon the fact that the serum of the blood of a patient suffering from that disease has a certain action upon the typhoid bacillus. The method of applying it has been slightly varied by different observers, but the following as introduced by Dr. Johnston of Montreal can be relied upon: A drop of the patient's blood is secured, placed on a clean stick, and allowed to dry. A loop of a bouillon culture of the typhoid bacillus is placed on a clean cover-glass and to this is added a large loopful of a watery solution of the dried blood. From the mixture of blood and typhoid bouillon a "hanging drop" preparation is made and examined with a high power objective; if the patient is suffering from typhoid fever the typhoid bacilli rapidly form clumps. If the patient has not typhoid fever this clumping does not take place.—*Lancet*.